

TOWN OF GILBERT



SEPTEMBER 21, 2015

**SUPPLEMENT TO MAG UNIFORM STANDARD DETAILS
FOR PUBLIC WORKS CONSTRUCTION**

100 SERIES: GENERAL DETAILS

New Detail No.	Description	Old Detail No.
GIL-180	SINGLE REFUSE AREA	80-4
GIL-181	DOUBLE-WIDE BIN ENCLOSURES	80-1
GIL-182	TRIPLE-WIDE BIN ENCLOSURES	80-2
GIL-183	RESTAURANT ENCLOSERN WITH GREASE TRAP	80-5
GIL-184	LARGE COMPACTOR REFUSE AREA	80-6
GIL-189	BIN ENCLOSURE SCREEN WALL, SAFETY POST & GATE STANDARDS	80-3

200 SERIES: STREET DETAILS

New Detail No.	Description	Old Detail No.
GIL-210	COMMERCIAL DRIVEWAY	M-42
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GIL-212	SIGHT DISTANCE AT CONTROLLED INTERSECTIONS	93
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GIL-221	STREET SIGN WITH DEAD END OR NO OUTLET	71
GIL-223	STREET SIGN – STREET NAME CHANGE AT INTERSECTION	72
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GIL-250	ASPHALT STAMPING DETAIL BRICK & ASHLAR SLATE TEMPLATE	402/403B
GIL-251	ASPHALT STAMPING DETAIL TRI-HEX KEYSTONE & TORTOISE SHELL TEMPLATE	403A/404
GIL-260	DETECTABLE WARNING MAT EXISTING RAMPS	NEW
GIL-261	DETECTABLE WARNING PANEL DETAIL NEW RAMP	NEW
GIL-270	BACKFILL, PAVEMENT & SURFACE REPLACEMENT	NEW
GIL-271	TRENCH PLATING	NEW
GIL-272	TRAFFIC DRUM DETAILS	NEW

300 SERIES: WATER DETAILS

New Detail No.	Description	Old Detail No.
GIL-301	BEDDING DETAIL - CONCRETE PIPE	84
GIL-302	BEDDING DETAIL - C-900 WATER PIPE	85
GIL-310	1" TO 2" WATER SERVICE INSTALLATION	62
GIL-320-1	FIRE HYDRANT	60
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GIL-325	PAVEMENT MARKERS FOR FIRE HYDRANTS	61
GIL-340-1	3", 4" & 6" WATER METER	NEW
GIL-340-2	STANDARD WATER METER VAULT	NEW
GIL-345	PARALLEL 2" WATER METER VAULT	NEW
GIL-349	1" AND 2" WATER SERVICE ABANDONMENT	NEW
GIL-350	2" AND SMALLER REDUCED PRESSURE PRINCIPLE ASSEMBLY	83L
GIL-351	2 1/2" AND LARGER REDUCED PRESSURE PRINCIPLE ASSEMBLY	83
GIL-359	GUARD POSTS	83B
GIL-360	1" AIR RELEASE VALVE	83A

400 SERIES: SEWER DETAILS

New Detail No.	Description	Old Detail No.
GIL-401	BEDDING DETAIL - PVC SEWER PIPE	86
GIL-402	BEDDING DETAIL - VCP SEWER PIPE	87
GIL-410	4" SEWER SERVICE INSTALLATION	64
GIL-419	4" SEWER SERVICE ABANDONMENT	NEW

700 SERIES: RECLAIMED WATER DETAILS

New Detail No.	Description	Old Detail No.
GIL-701	BEDDING DETAIL - RECLAIMED WATER LINE	88
GIL-710	RECLAIMED MANUAL SHUTOFF VALVES*	NEW
GIL-715	RECLAIMED VALVE LIDS*	NEW
GIL-720	RECLAIMED WATER METERS*	NEW
GIL-730	RECLAIMED AIR/VACUUM RELIEF VALVES*	NEW
GIL-740	RECLAIMED AUTOMATED TURNOUTS*	NEW

*NEED TO BE DEVELOPED

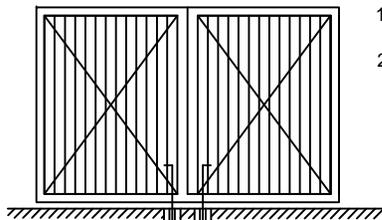
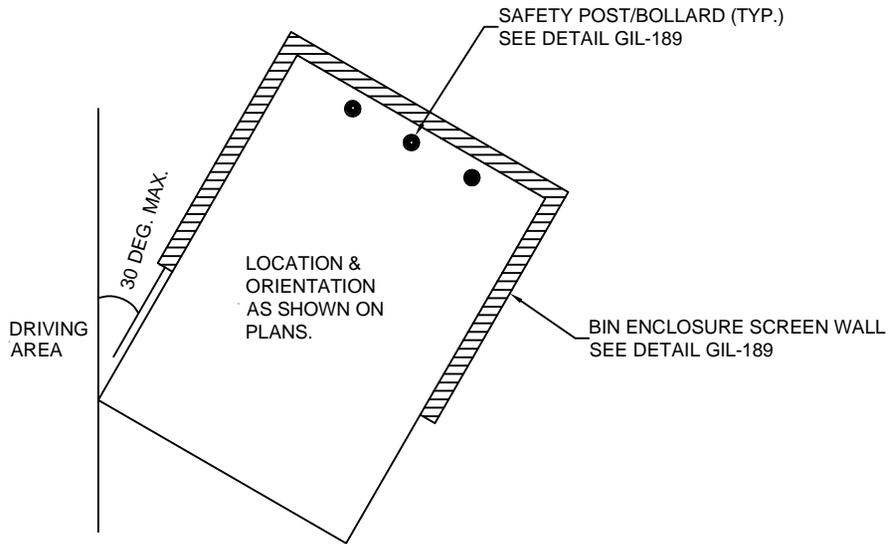
800 SERIES: TRAFFIC SIGNAL DETAILS

New Detail No.	Description	Old Detail No.
GIL-801	"Q" POLE LOADING DETAIL	112-A
GIL-802	"R" POLE LOADING DETAIL	112-B
GIL-803	"W" POLE LOADING DETAIL	112-C
GIL-810	25' LUMINAIRE MAST ARM	111
GIL-823	STANDARD VIDEO DETECTION DETAIL	113
GIL-831	INTERCONNECT TRENCHING AND JOINT UTILITY TRENCHING DETAIL	100
GIL-841	NO. 7 PULL BOX TYPICAL INSTALLATION FOR FIBER INTERCONNECT	94
GIL-842	NO. 7 PULL BOX TYPICAL INSTALLATION FOR TRAFFIC SIGNALS	95
GIL-843	TRAFFIC SIGNAL PULLBOX	96
GIL-844	NO. 9 VAULT AND COVER DETAIL	102
GIL-850	IMSA WIRE PHASE IDENTIFICATION	NEW
GIL-851	WIRE COLOR CODE AND IDENTIFICATION	NEW
GIL-861	CCTV CAMERA DETAIL	106
GIL-862	ETHERNET RADIO DETAIL	107
GIL-872	CONTROL CABINET FOUNDATION	110

900 SERIES: LIGHTING DETAILS

New Detail No.	Description	Old Detail No.
GIL-901	27' ROUND TAPERED POLE - ARTERIAL STREETS	P9A
GIL-902	32' ROUND TAPERED POLE - ARTERIAL STREETS	P9
GIL-905	35' ROUND TAPERED POLE - ARTERIAL STREETS (MEDIAN)	P10A
GIL-906	40' ROUND TAPERED POLE - ARTERIAL STREETS (MEDIAN)	P10
GIL-910	POST TOP STREET LIGHT - RESIDENTIAL STREETS	P8
GIL-919	POLE HANDHOLE DETAIL 4 1/8" X 10 1/4" REINFORCED	H2
GIL-921	12' X 8' HIGH RISE ARM	A1
GIL-922	8' X 3' MAST ARM	A2
GIL-923	8' X 8' HIGH RISE ARM FOR COBRA HEAD FIXTURE	A3
GIL-924	3' RADIUS ARM FOR COBRA HEAD FIXTURE	A4
GIL-925	6' RADIUS ARM FOR COBRA HEAD FIXTURE	A5
GIL-930	EMBEDDED POLE DETAIL	PF1
GIL-931	EMBEDDED POLE DETAIL (MEDIAN)	PF2
GIL-932	CONCRETE FOUNDATION DETAIL	PF3
GIL-941	FUSING AND GROUNDING DETAIL SRP AREA	FG1
GIL-942	FUSING AND GROUNDING DETAIL APS AREA	FG2
GIL-945	PHOTO CONTROL DETAIL	PC1

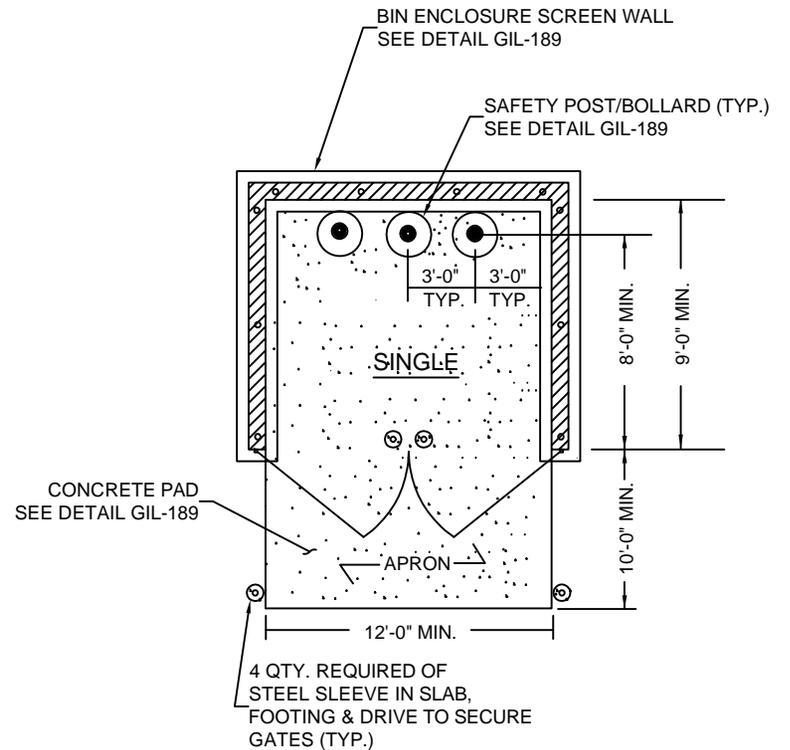
September 21, 2015

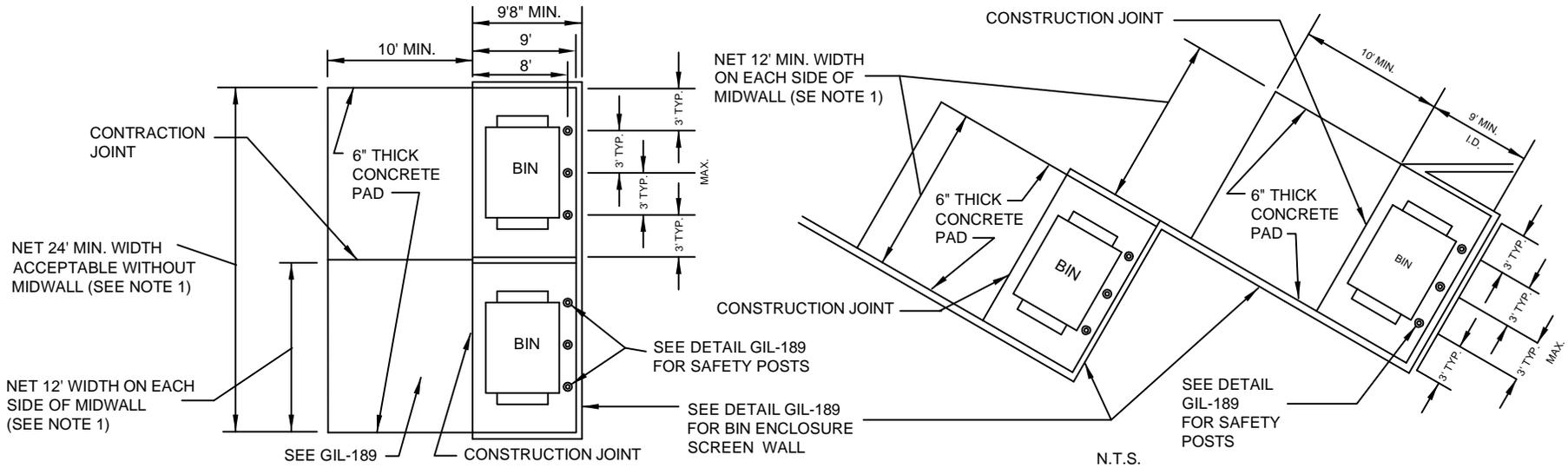


- 1) GATES SHALL BE FULL HEIGHT OF SCREEN WALLS.
- 2) GATES SHALL BE DESIGNED TO FULLY SCREEN ENCLOSED BIN(S). OPEN MESH OR RAIL DESIGNS ARE NOT PERMITTED.

2-1" DIA. GALV. STEEL CANE BOLT TO SECURE GATES.

CONCRETE FTG. 8" x 18" (TYP.)



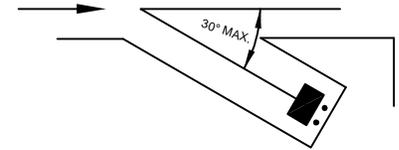


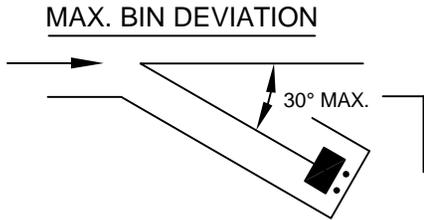
DOUBLE WIDE BIN ENCLOSURE CONFIGURATIONS

NOTES:

1. DOUBLE-WIDE BIN ENCLOSURES SHALL HAVE A NET ENCLOSURE OPENING OF 24 FEET WITHOUT MIDWALLS, ALTHOUGH NOT PREFERRED. DOUBLE-WIDE BIN ENCLOSURES CAN BE DESIGNED WITH MIDWALLS WITH A NET ENCLOSURE OPENING OF 12 FEET ON EACH SIDE OF MIDWALL.
2. GATES, HINGES & MOUNTING HARDWARE SHALL BE INSTALLED SO THERE IS A MIN. 9 FOOT DEPTH CREATED WITHIN EACH ENCLOSURE AND WITH 8 FOOT DEPTH FROM CENTERLINE OF BOLLARD TO INSIDE EDGE OF GATE.
3. GATES, HINGES AND MOUNTING HARDWARE SHALL NOT INTRUDE UPON MINIMUM NET ENCLOSURE OPENING.
4. BIN ENCLOSURES ARE TO BE ANGLED NO MORE THAN 30 DEGREES FROM THE CENTER LINE OF THE SOLID WASTE COLLECTION VEHICLE ROUTE.
5. BINS THAT ARE VISIBLE FROM A PUBLIC ROADWAY SHALL HAVE ENCLOSURE GATES THAT SCREEN THE BINS FROM PUBLIC VIEW.
6. BIN ENCLOSURES TO BE A MIN. 5 FEET FROM ANY PLANNED OR EXISTING STRUCTURE AT ITS CLOSEST POINT. (FIRE CODE)

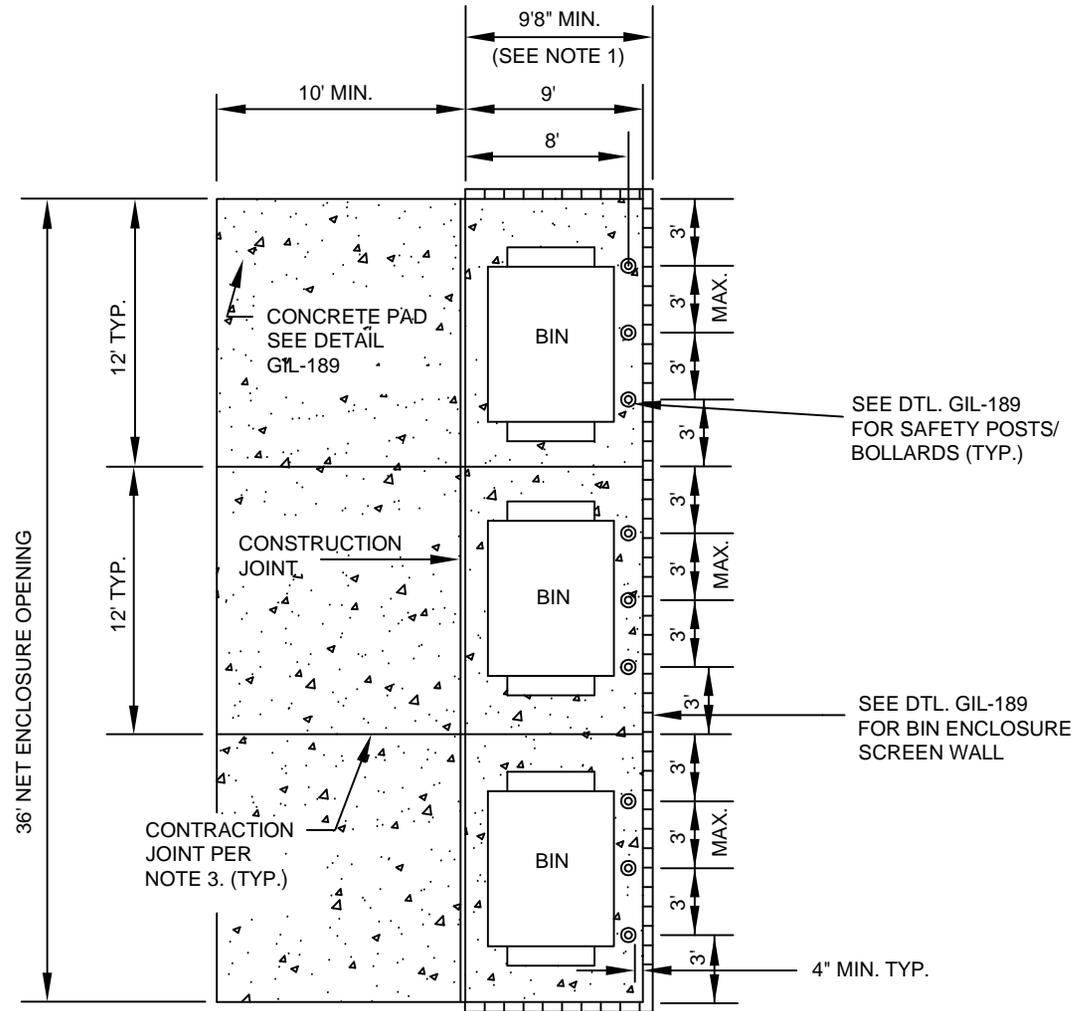
MAX. BIN DEVIATION





NOTES:

1. GATES, HINGES AND MOUNTING HARDWARE SHALL BE INSTALLED SO THERE IS A MINIMUM 9 FOOT DEPTH CREATED WITHIN EACH ENCLOSURE.
2. BIN ENCLOSURES ARE TO BE ANGLED NO MORE THAN 30 DEGREES FROM THE CENTER LINE OF THE SOLID WASTE COLLECTION VEHICLE ROUTE.
3. CONTRACTION JOINTS MAY BE EITHER SCORED OR SAWCUT 1 INCH DEEP.



TRIPLE-WIDE BIN ENCLOSURE
N.T.S.



STANDARD
DETAIL

TRIPLE-WIDE BIN ENCLOSURE

APPROVED

TOWN ENGINEER

DATE

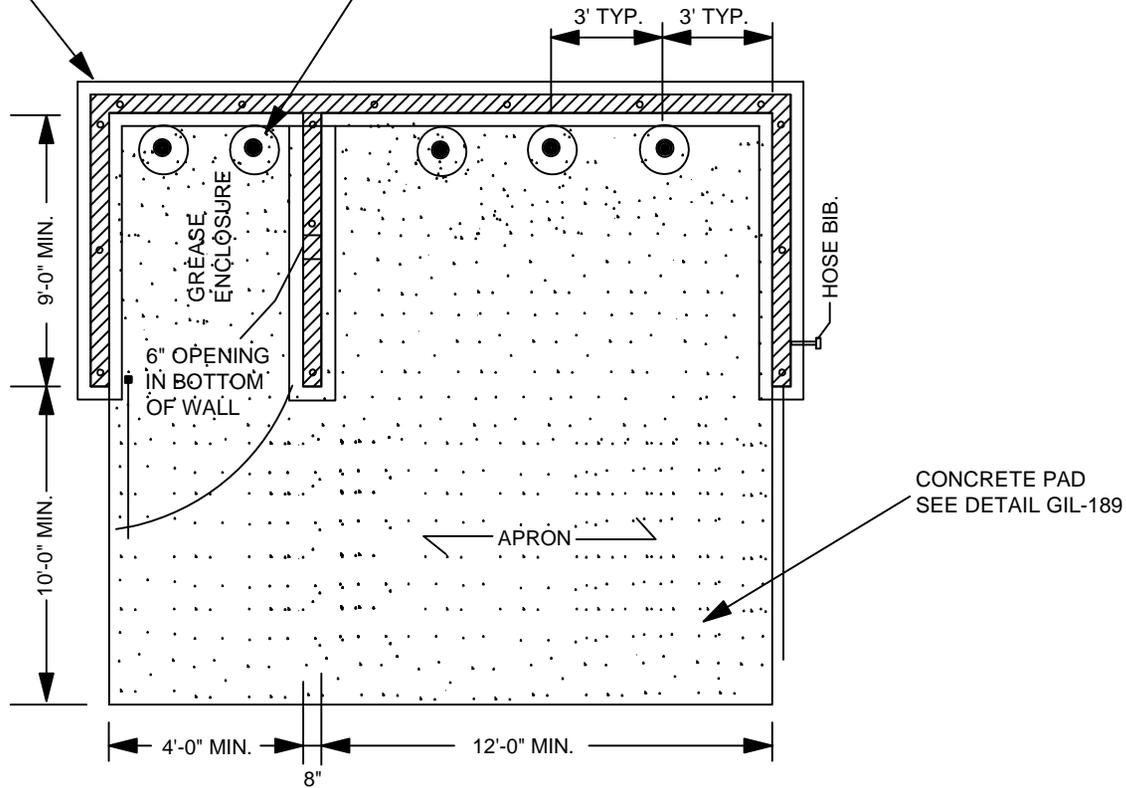
DETAIL No.
GIL-182

BIN ENCLOSURE SCREEN WALL
SEE DETAIL GIL-189

SAFETY POST/BOLLARD (TYP.)
SEE DETAIL GIL-189

NOTES:

1. WHERE CONECTIONS TO THE SANITARY SEWER ARE PROVIDED, THE DRAINAGE SYSTEM SHALL BE CONNECTED TO A GREASE INTERCEPTOR.



ENCLOSURE WITH GREASE TRAP.



STANDARD
DETAIL

RESTAURANT ENCLOSURE
WITH GREASE TRAP

APPROVED

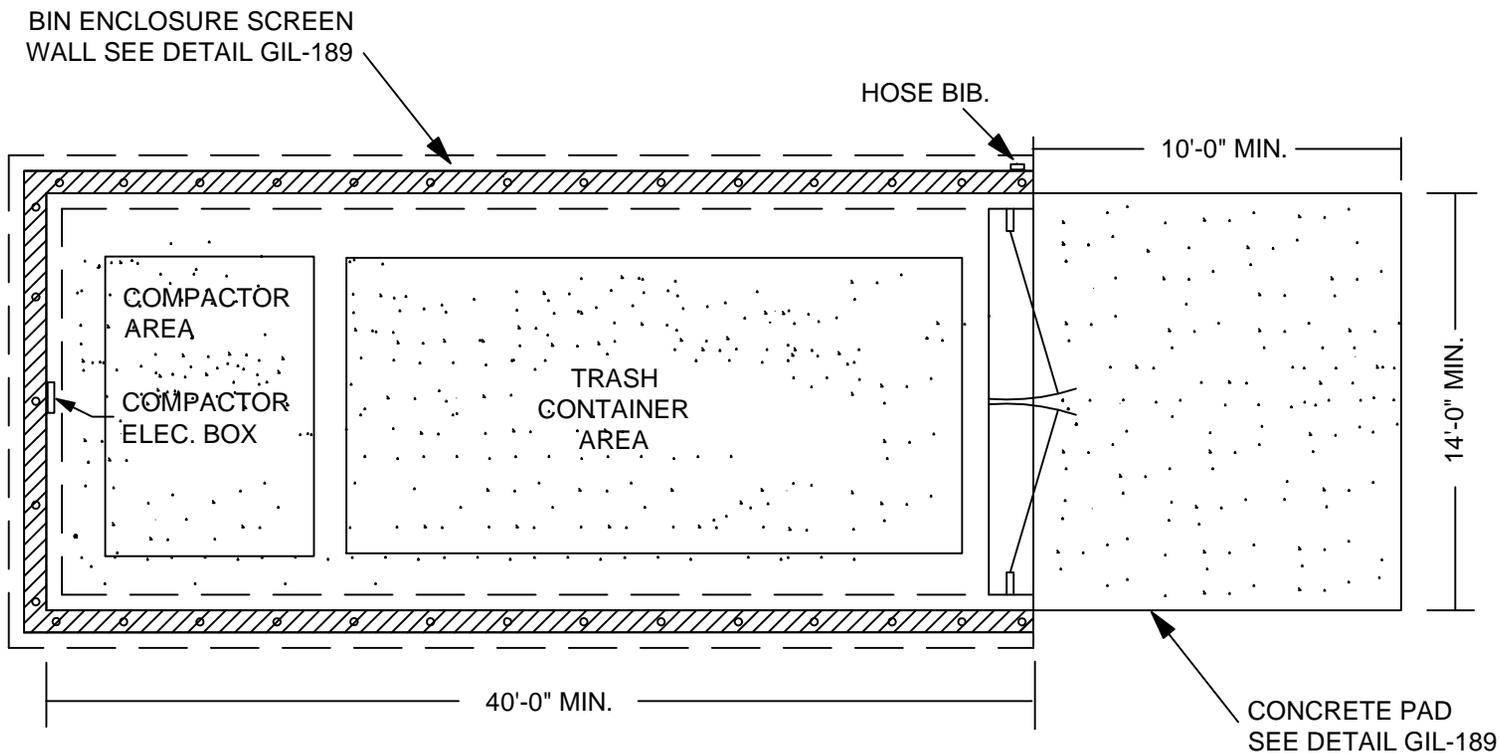
TOWN ENGINEER

DATE

DETAIL No.
GIL-183

NOTES:

1. WHERE A COMPACTOR INSTALLATION PRODUCES LIQUID WASTE DRAINAGE, A RECEPTOR CONNECTED TO THE SANITARY SEWER SHALL BE PROVIDED. THE DRAINAGE PIPING SHALL BE CONNECTED TO A GREASE INTERCEPTOR.



STANDARD
DETAIL

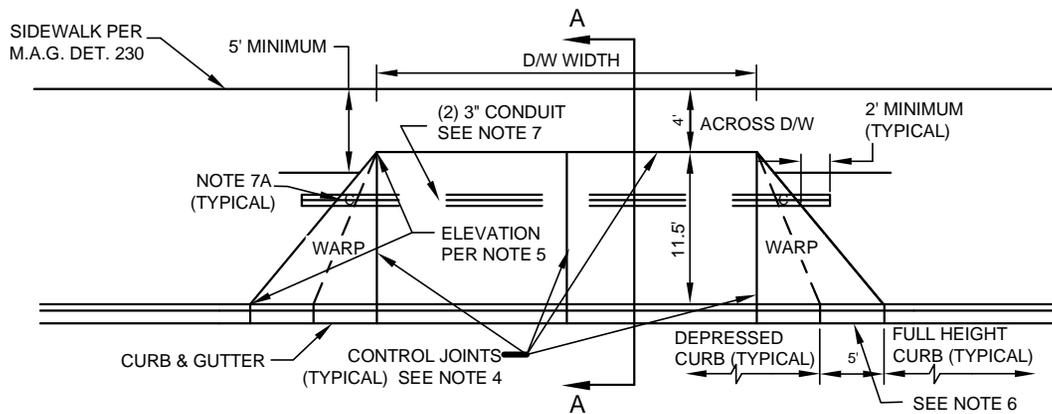
LARGE COMPACTOR
REFUSE AREA

APPROVED

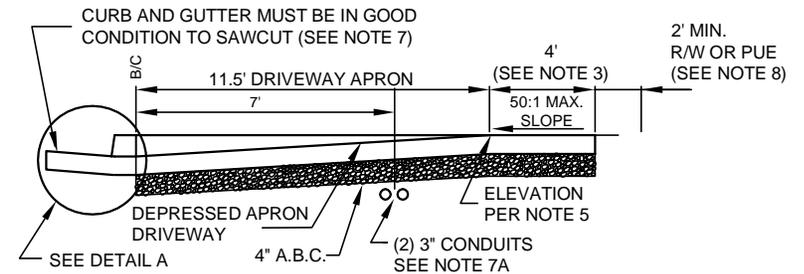
TOWN ENGINEER

DATE

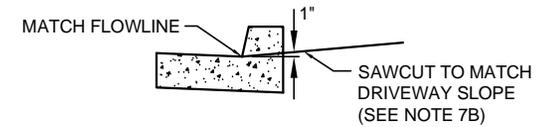
DETAIL No.
GIL-184



PLAN - DETAIL



SECTION "A"- "A"



DETAIL "A"

NOTES:

1. EXPANSION JOINTS SHALL BE CONSTRUCTED AT EACH SIDE OF DRIVEWAY DEPRESSION AT POINTS OF CURVATURE AND AT ALL RIGID STRUCTURES.
2. ALL CONCRETE SHALL BE CLASS 'A' AS PER M.A.G. SECTION 725.
3. ALL COMMERCIAL DRIVEWAYS, ALLEY ENTRANCES AND SIDEWALKS BEHIND DRIVEWAYS SHALL BE 6" THICK ON 4" A.B.C. OR 8" THICK ON COMPACTED NATIVE SOIL. SIDEWALK WIDTH AT BACK OF DRIVEWAY SHALL BE 4 FEET.
4. ALL COMMERCIAL DRIVEWAYS HAVE CONTROL JOINTS AT THE DRIVEWAY CENTER LINE, AT BREAK BETWEEN SIDEWALK AND DRIVEWAY WINGS AND FROM BACK CORNER OF APRON TO LIP OF GUTTER. THE CONTROL JOINTS MAY BE EITHER SCORED OR SAWCUT 1 INCH DEEP.
5. FINISH GRADE ELEVATION AT THE APRON CORNER/SIDEWALK SHALL EQUAL THE TOP OF CURB ELEVATION UNLESS OTHERWISE APPROVED BY THE TOWN ENGINEER.
6. FINISH CURB ELEVATION SHALL TRANSITION UNIFORMLY FROM FULL HEIGHT CURB ELEVATION TO DEPRESSED CURB ELEVATION.
7. WHEN INSTALLING A DRIVEWAY IN EXISTING SIDEWALK AND/OR CURB, THE FOLLOWING NOTES APPLY:
 - A. INSTALL (2) 3" SCHEDULE 40 P.V.C. CONDUITS AT 7' BACK OF CURB, MINIMUM 24" BELOW FINAL GRADE AND EXTEND 2' MINIMUM BEYOND EDGE OF DRIVEWAY FOR POSSIBLE FUTURE LANDSCAPE OR STREET LIGHT INSTALLATION. INSTALL PLUGS IN BOTH ENDS OF CONDUITS. STAMP 3" LETTER "C" IN CONCRETE FOR CONDUIT MARKER.
 - B. REMOVE CURB PORTION ONLY WHEN CONSTRUCTING NEW DEPRESSION IN EXISTING CURB & GUTTER. EXISTING CURB SHALL BE REMOVED BY SAWCUTTING CURB HORIZONTALLY AS SHOWN IN DETAIL 'A', ONLY AS APPROVED BY THE TOWN ENGINEER. DAMAGED GUTTER SHALL BE REMOVED AND REPLACED WHERE DIRECTED BY THE TOWN ENGINEER.
 - C. SIDEWALK SHALL BE SAWCUT TO FULL DEPTH OR REMOVED TO NEXT EXPANSION JOINT.
8. THE BACK OF R/W OR P.U.E. SHALL EXTEND 2' MINIMUM BEYOND THE BACK OF SIDEWALK ALONG THE BACK OF THE DRIVEWAY, UNLESS OTHERWISE APPROVED BY THE TOWN ENGINEER.
9. A DOUBLE DRIVEWAY WITH A RAISED MEDIAN IS REQUIRED AT DRIVEWAYS OVER 40 FEET IN WIDTH.
10. FOR ACCEPTABLE DRIVEWAY GRADE BREAKS USE A.D.O.T. DRAWING C-06.10.



**STANDARD
DETAIL**

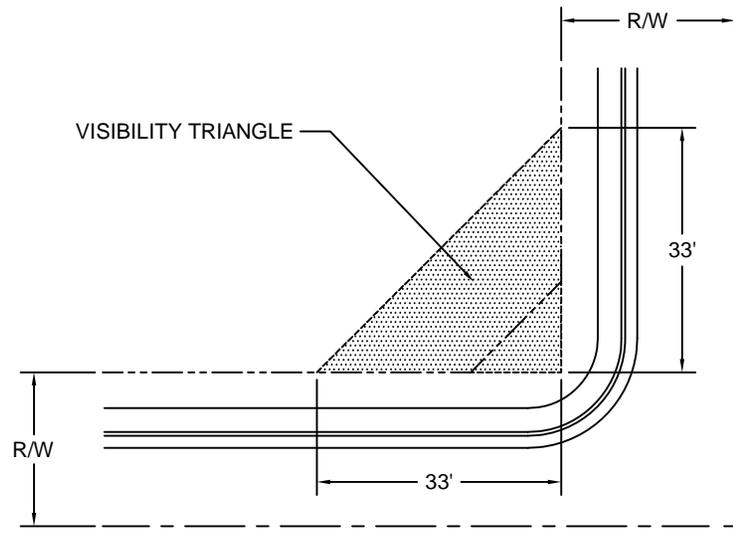
MINOR COMMERCIAL DRIVEWAY

APPROVED

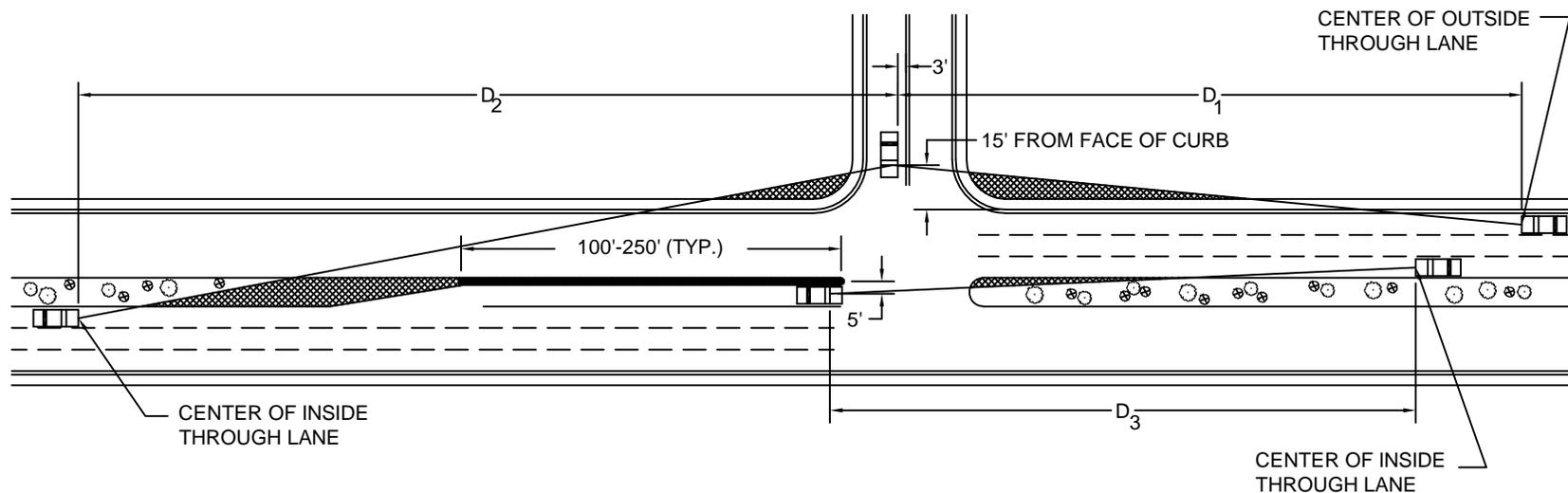
TOWN ENGINEER

DATE

DETAIL No.
GIL-210

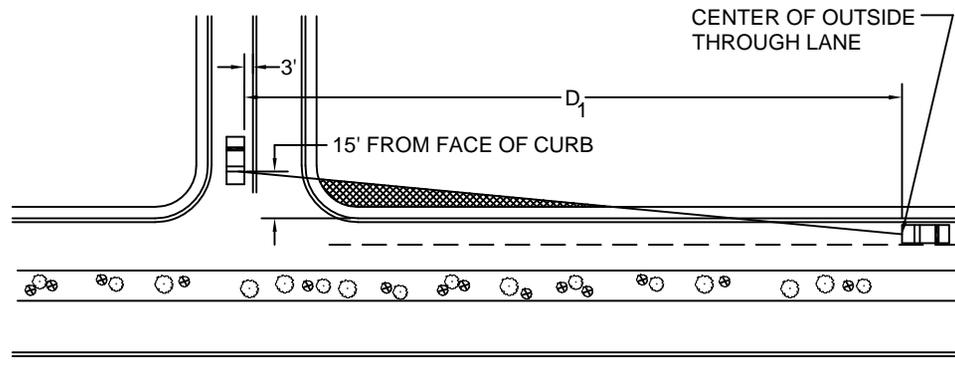


GROUND COVER AND FLOWERS LESS THAN 24 INCHES (MATURE) IN HEIGHT, GRANITE, AND TREES TRIMMED TO MINIMUM OF 7 FEET ABOVE GROUND ALLOWED IN THIS AREA.



 GROUND COVER AND FLOWERS LESS THAN 24 INCHES (MATURE) IN HEIGHT AND TREES TRIMMED TO MINIMUM OF 7 FEET ABOVE GROUND ALLOWED IN THIS AREA.

 NO PLANTS OF ANY KIND, BOULDERS, OR STRUCTURES ALLOWED IN THIS AREA. DECORATIVE CONCRETE PREFERRED.



NOTE: DETAIL PERTAINS TO ALL CONTROLLED INTERSECTIONS AND COMMERCIAL/SHOPPING CENTER DRIVEWAYS ON ALL CLASSIFICATIONS OF ROADWAYS.

MAIN STREET	POSTED SPEED LIMIT ON MAIN STREET	D ₁	D ₂	D ₃
LOCAL	25	310'	355'	245'
COLLECTOR	25	310'	355'	245'
	30	365'	415'	285'
MINOR ARTERIAL	35	415'	475'	325'
	45	590'	625'	445'
MAJOR ARTERIAL	45	665'	665'	480'



LAYOUT ONLY, SEE BELOW FOR LETTER STYLE.

1. LENGTH: DEPENDS ON LENGTH OF STREET NAME.
2. METAL: .080 GAUGE, 6061-T6 OR 5052-H3B ALLOY SHEET ALUMINUM.
3. REFLECTIVE SHEETING: COPY AND BACKGROUND SHALL BE 3-M TYPE XI OR EQUIVALENT. MATCH COMPONENT SYSTEM.
4. LETTERS, NUMBERS, ETC. TO BE PRESSURE SENSITIVE ACRYLIC EC FILM.
5. LETTERS, NUMBERS AND SPACING SHALL BE PER U.S. DEPARTMENT OF TRANSPORTATION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS SERIES B.
6. COLOR: TO BE PER LATEST ADOT STANDARDS WITH THE BACKGROUND GREEN AND THE COPY (BORDER AND LEGEND) WHITE WITH THE EXCEPTION OF PRIVATE STREETS WHICH SHALL HAVE A BLUE BACKGROUND.
7. SIGN PANELS SHALL BE FREE OF BUCKLES, WARPS, DENTS, COCKLES, BURPS AND DEFECTS RESULTING FROM FABRICATIONS AND SHIPPING.
8. PRESSURE SENSITIVE COPY MUST PROVIDE MINIMUM 10 YEAR DURABILITY WITH PREMATURE FAILURE DUE TO NATURAL WEATHERING OR SIGN TO BE REPLACED BY VENDOR AT NO CHARGE TO THE TOWN OF GILBERT. FAILURE IS INTERPRETED TO BE CRACKING OR PEELING OF BACKGROUND OR LEGEND FROM NORMAL WEATHERING.
9. THE SIGN MANUFACTURER SHALL SUBMIT A NOTARIZED CERTIFICATION OF COMPLIANCE TO THE TOWN OF GILBERT STATING THAT THE MANUFACTURE PROCEDURE AND THE MATERIALS FURNISHED CONFORM TO THE REQUIREMENTS OF THE PROVISIONS.
10. DIMENSIONS (INCHES)

WHEN APPROACHED ON A:	A	B	C	D	E
ARTERIAL	8	6	3	2.25	12
COLLECTOR	6	4.5	3	2.25	10
LOCAL	4	3	2	1.5	8



STANDARD
DETAIL

STREET SIGN

APPROVED

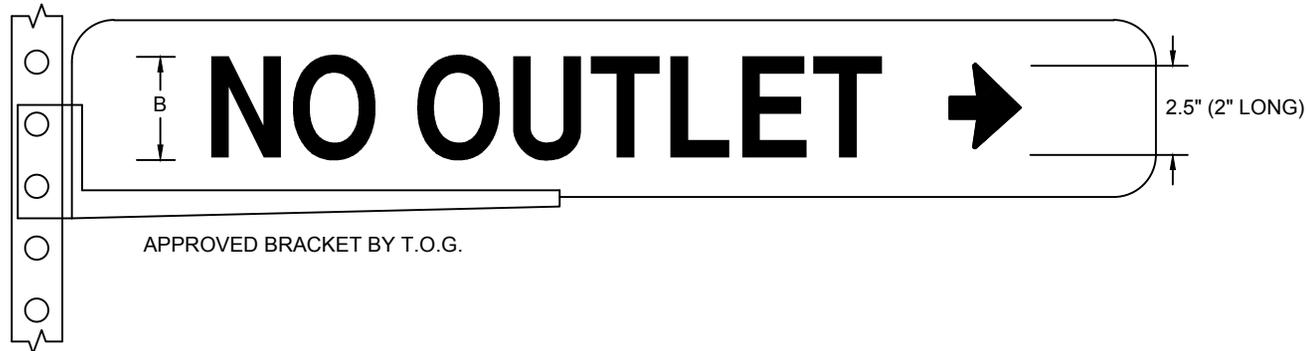
TOWN ENGINEER

DATE

DETAIL No.
GIL-220



LAYOUT ONLY, SEE BELOW FOR LETTER STYLE.



APPROVED BRACKET BY T.O.G.

1. LENGTH: TO ACCOMMODATE TEXT AND ARROW PER NOTE 10.
2. METAL: .080 GAUGE, 6061-T6 OR 5052-H3B ALLOY SHEET ALUMINUM.
3. REFLECTIVE SHEETING: COPY AND BACKGROUND SHALL BE 3-M TYPE XI OR EQUIVALENT. MATCH COMPONENT SYSTEM.
4. LETTERS, NUMBERS, ETC. TO BE PRESSURE SENSITIVE ACRYLIC EC FILM. TEXT OF "DEAD END" OR "NO OUTLET" PER TOWN TRAFFIC ENGINEER.
5. LETTERS, NUMBERS AND SPACING SHALL BE PER U.S. DEPARTMENT OF TRANSPORTATION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS SERIES B.
6. COLOR: TO BE PER LATEST ADOT STANDARDS WITH THE BACKGROUND YELLOW AND THE COPY (LEGEND) BLACK.
7. SIGN PANELS SHALL BE FREE OF BUCKLES, WARPS, DENTS, COCKLES, BURPS AND DEFECTS RESULTING FROM FABRICATIONS AND SHIPPING.
8. PRESSURE SENSITIVE COPY MUST PROVIDE MINIMUM 10 YEAR DURABILITY WITH PREMATURE FAILURE DUE TO NATURAL WEATHERING OR SIGN TO BE REPLACED BY VENDOR AT NO CHARGE TO THE TOWN OF GILBERT. FAILURE IS INTERPRETED TO BE CRACKING OR PEELING OF BACKGROUND OR LEGEND FROM NORMAL WEATHERING.
9. THE SIGN MANUFACTURER SHALL SUBMIT A NOTARIZED CERTIFICATION OF COMPLIANCE TO THE TOWN OF GILBERT STATING THAT THE MANUFACTURE PROCEDURE AND THE MATERIALS FURNISHED CONFORM TO THE REQUIREMENTS OF THE PROVISIONS.
10. DIMENSIONS (INCHES)

WHEN APPROACHED ON A:	A	B
ARTERIAL	8	6
COLLECTOR/LOCAL	6	4



STANDARD
DETAIL

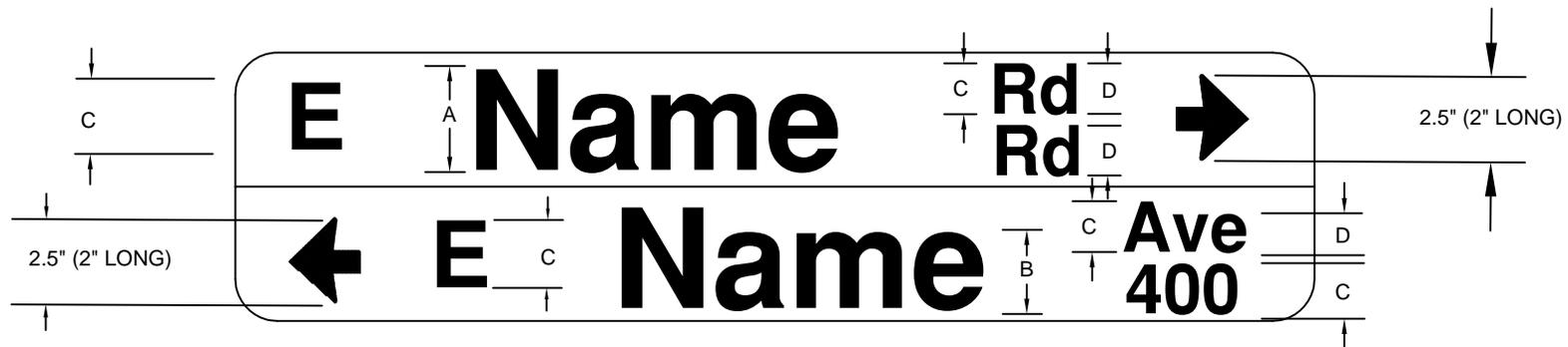
STREET SIGN
WITH DEAD END OR NO OUTLET

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-221



LAYOUT ONLY, SEE BELOW FOR LETTER STYLE

1. LENGTH: DEPENDS ON LENGTH OF STREET NAME (LEGEND).
2. METAL: 6" FLAT, .080 GAUGE, 6061-T6 OR 5052-H3B ALLOY SHEET ALUMINUM.
3. REFLECTIVE SHEETING: COPY AND BACKGROUND SHALL BE 3-M TYPE XI OR EQUIVALENT. MATCH COMPONENT SYSTEM.
4. LETTERS, NUMBERS, ETC. TO BE PRESSURE SENSITIVE ACRYLIC EC FILM.
5. LETTERS, NUMBERS AND SPACING SHALL BE PER U.S. DEPARTMENT OF TRANSPORTATION STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS SERIES B.
6. COLOR: TO BE PER LATEST ADOT STANDARDS WITH THE BACKGROUND GREEN AND THE COPY (BORDER AND LEGEND) WHITE WITH THE EXCEPTION OF PRIVATE STREETS WHICH SHALL HAVE A BLUE BACKGROUND.
7. SIGN PANELS SHALL BE FREE OF BUCKLES, WARPS, DENTS, COCKLES, BURPS AND DEFECTS RESULTING FROM FABRICATIONS AND SHIPPING.
8. PRESSURE SENSITIVE COPY MUST PROVIDE MINIMUM 10 YEAR DURABILITY WITH PREMATURE FAILURE DUE TO NATURAL WEATHERING OR SIGN TO BE REPLACED BY VENDOR AT NO CHARGE TO THE TOWN OF GILBERT. FAILURE IS INTERPRETED TO BE CRACKING OR PEELING OF BACKGROUND OR LEGEND FROM NORMAL WEATHERING.
9. THE SIGN MANUFACTURER SHALL SUBMIT A NOTARIZED CERTIFICATION OF COMPLIANCE TO THE TOWN OF GILBERT STATING THAT THE MANUFACTURE PROCEDURE AND THE MATERIALS FURNISHED CONFORM TO THE REQUIREMENTS OF THE PROVISIONS.
10. DIMENSIONS (INCHES)

WHEN APPROACHED ON A:	A	B	C	D
ARTERIAL	8	6	3	2.25
COLLECTOR	6	4.5	3	2.25
LOCAL	4	3	2	1.5



STANDARD
DETAIL

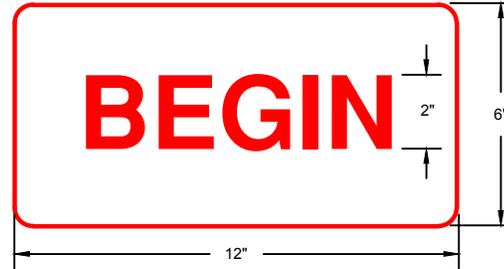
STREET SIGN
STREET NAME CHANGE AT INTERSECTION

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-223



NOTES:

FIRE LANE NO PARKING SIGNS SHALL BE INSTALLED AS FOLLOWS:

- ONE AT THE BEGINNING OF THE RESTRICTION. (DETAIL #1) WITH (DETAIL #2)
- ONE SPACED EVENLY EVERY ONE HUNDRED (100) FEET WITHIN THE RESTRICTED AREA (DETAIL #1). SOME AREAS MAY REQUIRE REDUCED SIGN SPACING AT THE DISCRETION OF THE FIRE CODE OFFICIAL. IN CURVED CURBS/ZONES AND AREAS THAT PRESENT VISUAL OBSTACLES, SIGNS NEED TO BE VISIBLE FROM ANY POINT ALONG THE RESTRICTION.
- ONE AT THE END OF THE RESTRICTION. (DETAIL #1) WITH (DETAIL #3)

2" LETTERS ARE 5/8" WIDE.
 1 1/2" LETTERS ARE 1/2" WIDE.
 3/4" LETTERS ARE 1/8" WIDE.
 ALL LETTERS ARE RED ON A WHITE REFLECTIVE BACKGROUND.

THE SIGNS ARE TO BE MOUNTED ON A POST AS PER TOG STANDARD DETAIL GIL-227.

THE BOTTOM OF THE SIGN IS TO BE 7' ABOVE GRADE.

THESE SIGNS ARE NOT SUPPLIED BY THE TOWN OF GILBERT.



STANDARD
DETAIL

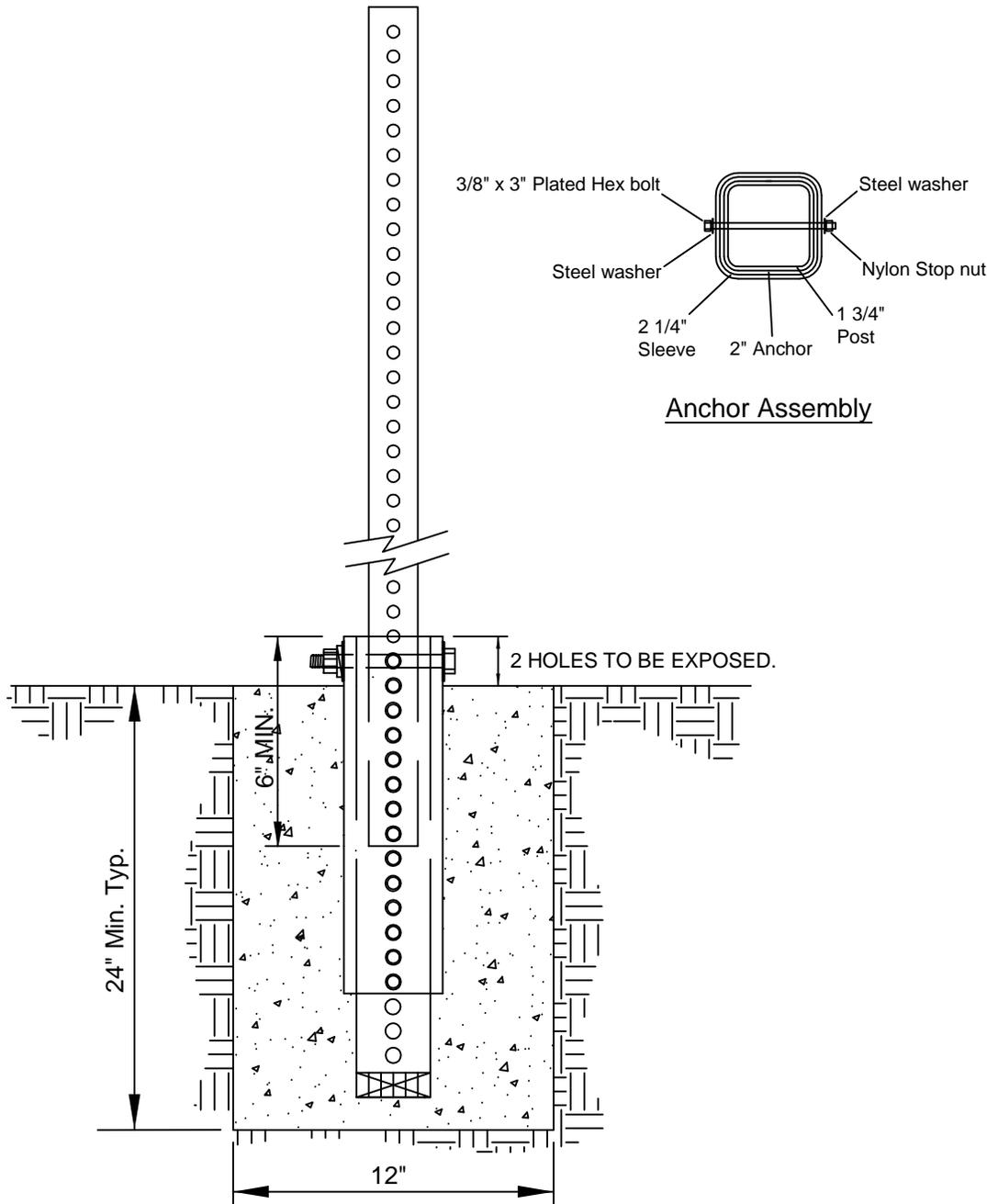
FIRE LANE SIGN DETAIL

APPROVED

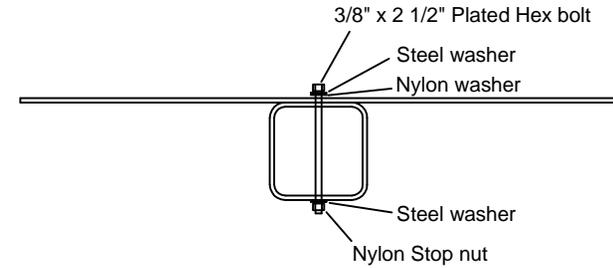
TOWN ENGINEER

DATE

DETAIL No.
GIL-226



Anchor Assembly



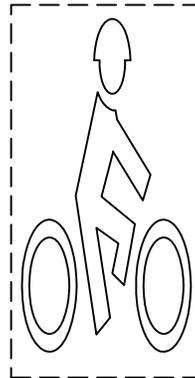
Sign Mounting

NOTES:

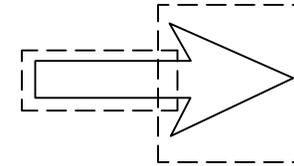
1. INSTALL ALL TRAFFIC SIGNS 36" x 36" (1296 SQ. IN.) OR LESS ON 12 GAUGE 1 3/4" SQUARE STEEL TUBING.
2. INSTALL ALL TRAFFIC SIGNS GREATER THAN 36" x 36" (1296 SQ. IN.) ON 12 GAUGE 2" SQUARE STEEL TUBING.
3. CONCRETE BASE 2' DEEP MIN. X 12" WIDE 18" LONG ANCHOR & 12" SLEEVE COMPLETELY TAPED TO PREVENT SEAPAGE OF CONCRETE.
4. POST ANCHOR SHALL HAVE 2 HOLES EXPOSED AT FINISHED GRADE.
5. ALL TRAFFIC SIGNS, WITH THE EXCEPTION OF R6-1 & DELINEATORS, SHALL BE SET AT A HEIGHT OF 7' TO BOTTOM OF SIGN. POSTS WITH DUAL SIGN ASSEMBLIES MAY BE SET AT 6' TO BOTTOM OF SIGN IF THE SECONDARY SIGN DOES NOT PROJECT MORE THAN 4" INTO THE SIDEWALK. DELINEATORS SHALL BE MOUNTED AT A MINIMUM OF 4' TO THE BOTTOM OF THE SIGN. ALTERNATIVE HEIGHTS MUST BE APPROVED BY THE TOWN TRAFFIC ENGINEER PRIOR TO INSTALLATION.
6. BOLT FOR BASE TO BE PERPENDICULAR TO THE FLOW OF TRAFFIC.



TRAIL

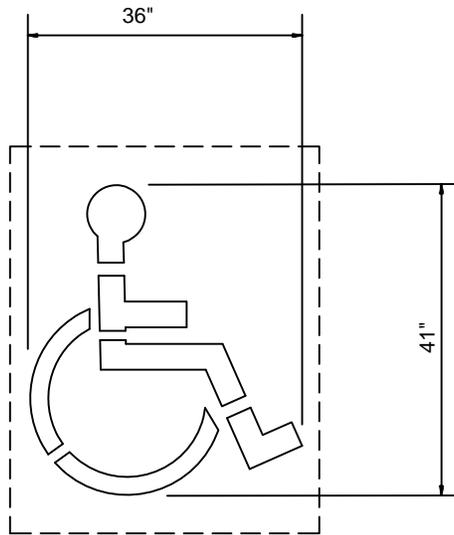


BIKE LANE

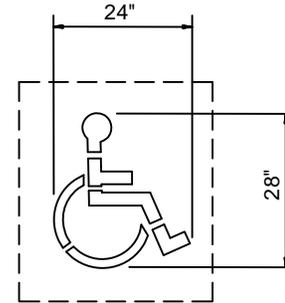


BIKE LANE ARROW

BIKE PAVEMENT MARKING STENCILS			
LEGEND OR IMAGE	IMAGE WIDTH & HEIGHT	STENCIL SIZE (SPRAY PAINT)	STENCIL SIZE (HOT PLASTIC)
STRAIGHT ARROW	72" X 21"		
BIKE TRAIL SYMBOL	52" X 42"	56" X 44"	60" X 48"
BIKE LANE SYMBOL	36" X 72"	44" X 86"	48" X 90"

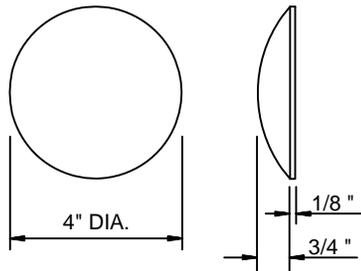


S-48HC
HANDICAP PARKING SYMBOL

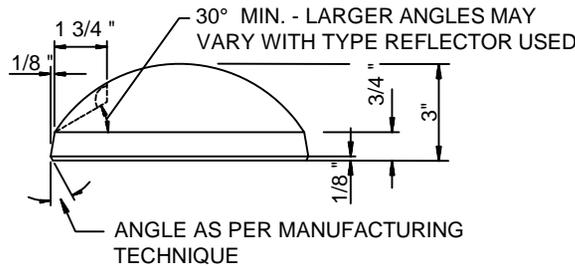
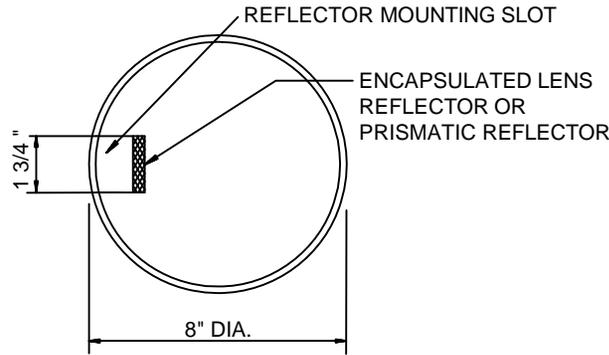


S-24HC
HANDICAP PARKING SYMBOL

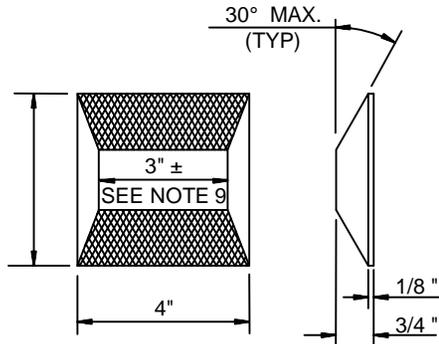
PAVEMENT MARKING STENCILS				
NO.	IMAGE	IMAGE WIDTH & HEIGHT	STENCIL SIZE (SPRAY PAINT)	STENCIL SIZE (HOT PLASTIC)
S-48HC	HANDICAP PARKING SYMBOL	36" X 41"	44" X 56"	48" X 60"
S-24HC	HANDICAP PARKING SYMBOL	24" X 28"	26" X 30"	30" X 34"



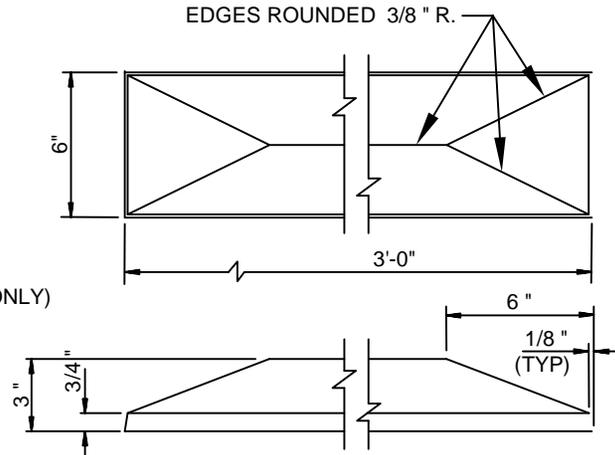
TYPE A & TYPE AY



TYPE J & TYPE JY
DAGMAR



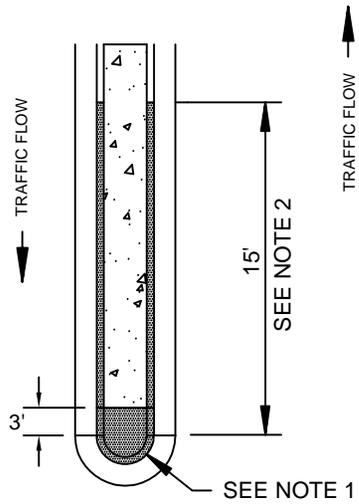
TYPE C, D, G & H
(TYPE G & H REFLECTORIZED ON ONE SIDE ONLY)



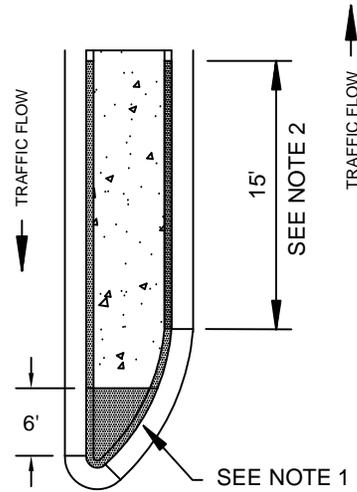
TYPE K & TYPE KY
JIGGLE BAR

NOTES:

1. TYPE A RAISED PAVEMENT MARKERS ARE WHITE AND NON-REFLECTIVE. TYPE AY RAISED PAVEMENT MARKERS ARE YELLOW AND NON-REFLECTIVE.
2. TYPE J DAGMARS ARE WHITE AND REFLECTORIZED. TYPE JY DAGMARS ARE YELLOW AND REFLECTORIZED. ENCAPSULATED LENS REFLECTORS SHALL BE USED FOR TYPE J AND JY DAGMARS. SUCH REFLECTORS SHALL NOT EXTEND BEYOND THE CROWN SURFACE.
3. TYPE A AND AY RAISED PAVEMENT MARKERS AND J AND JY DAGMARS CONSIST OF A HEAT-FIRED VITREOUS CERAMIC BASE AND A HEAT-FIRED, OPAQUE, GLAZED SURFACE.
4. THE FOLLOWING RAISED PAVEMENT MARKERS ARE REFLECTORIZED AND INTENDED FOR USE WITH TWO-WAY TRAFFIC:
COLOR --- TYPE D - YELLOW BOTH SIDES
5. THE FOLLOWING RAISED PAVEMENT MARKERS ARE REFLECTORIZED AND INTENDED FOR USE WITH ONE-WAY TRAFFIC:
COLOR
TYPE C - WHITE ONE SIDE, RED ONE SIDE
TYPE G - WHITE
TYPE H - YELLOW
6. TYPE C, D, G AND H RAISED PAVEMENT MARKERS SHALL CONSIST OF A PLASTIC SHELL FILLED WITH A MIXTURE OF AN INERT THERMO SETTING COMPOUND AND FILLER MATERIALS. THE EXTERIOR SURFACE SHALL BE SMOOTH. THE SHELL SHALL CONTAIN ONE OR TWO PRISMATIC REFLECTOR FACES, AS REQUIRED, OF THE COLOR SPECIFIED.
7. TYPE K JIGGLE BARS ARE WHITE AND REFLECTORIZED. TYPE KY JIGGLE BARS ARE YELLOW AND REFLECTORIZED. JIGGLE BARS MAY CONSIST OF A HEAT-FIRED VITREOUS CERAMIC BASE OR A CLASS B CONCRETE MIX FOR MINOR STRUCTURES. THE COLOR OF JIGGLE BARS SHALL BE ACCOMPLISHED BY PAINTING ALL UPPER SURFACES WITH TRAFFIC PAINT. REFLECTORIZATION SHALL BE ACCOMPLISHED BY DROPPING GLASS BEADS INTO THE WET TRAFFIC PAINT. TRAFFIC PAINT, GLASS BEADS AND METHODS OF APPLICATION SHALL BE PER MANUFACTURER'S RECOMMENDATION.
8. ALL DIMENSIONS ARE NOMINAL, EXCEPT AS OTHERWISE NOTED.
9. THE REFLECTORIZED RAISED PAVEMENT MARKER ILLUSTRATED IS THE SQUARE SHOULDER TYPE. THE ROUND SHOULDER TYPE IS AN ACCEPTABLE ALTERNATE.

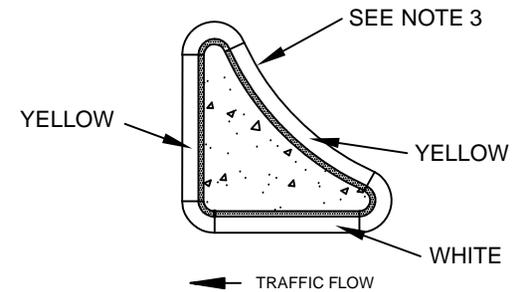
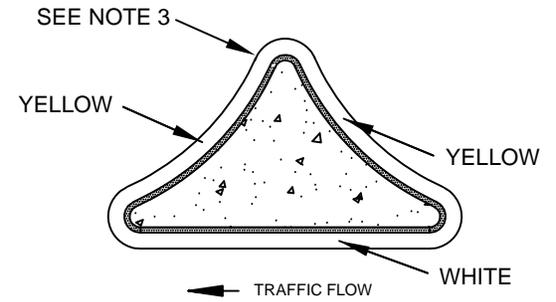


(FOR MEDIANS LESS THAN 6 FEET IN WIDTH)



(FOR MEDIANS OVER 6 FEET IN WIDTH)

MEDIANS



ISLANDS

NOTES:

1. PAINT TOP AND VERTICAL FACE OF CURB YELLOW AND INSIDE OF BULLNOSE (CONCRETE BULLNOSE ONLY). SEE MAG DETAIL 223.
2. PAINT TOP AND VERTICAL FACE OF CURB FOR THE DISTANCE SHOWN.
3. PAINT TOP AND VERTICAL FACE OF CURB ON ISLANDS AS SHOWN.



STANDARD
DETAIL

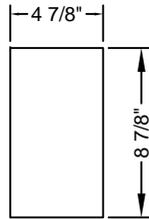
CURB MARKINGS FOR
RAISED MEDIANS AND MEDIAN ISLANDS

APPROVED

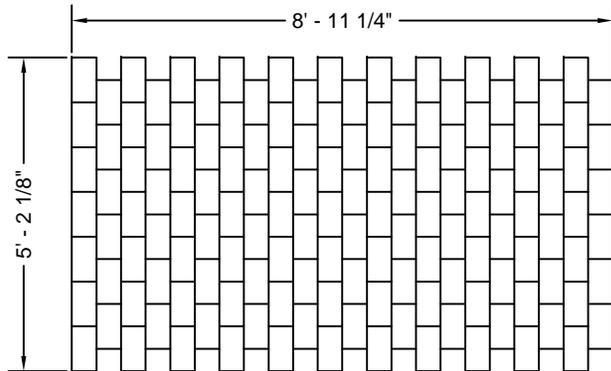
TOWN ENGINEER

DATE

DETAIL No.
GIL-240

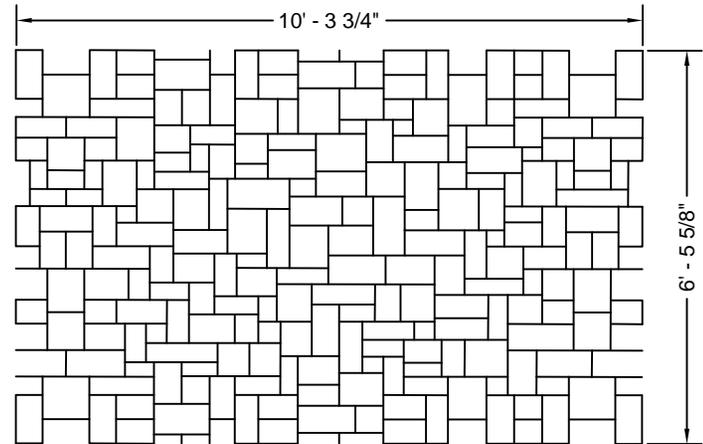


INDIVIDUAL OFFSET BRICK PATTERN



OFFSET BRICK TEMPLATE

NOTE:
 OFFSET BRICK TEMPLATE SHALL BE USED ON PAVED
 MEDIANS ONLY.



ASHLAR SLATE TEMPLATE

NOTE:
 ASHLAR SLATE TEMPLATE SHALL BE USED ON
 RAISED MEDIANS ONLY.

THE ASHLAR SLATE TEMPLATE HAS NO REPEATING
 PATTERN, THEREFORE, AN INDIVIDUAL TEMPLATE IS
 NOT SHOWN.



STANDARD
 DETAIL

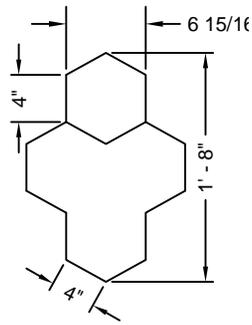
ASPHALT STAMPING DETAIL
 OFFSET BRICK & ASHLAR SLATE TEMPLATE

APPROVED

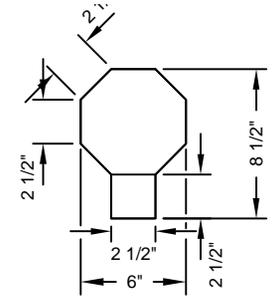
 TOWN ENGINEER

 DATE

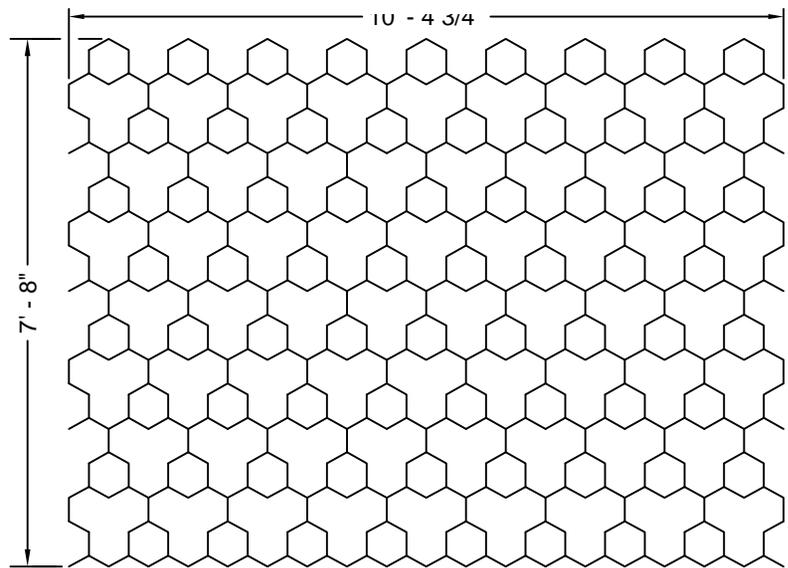
DETAIL No.
GIL-250



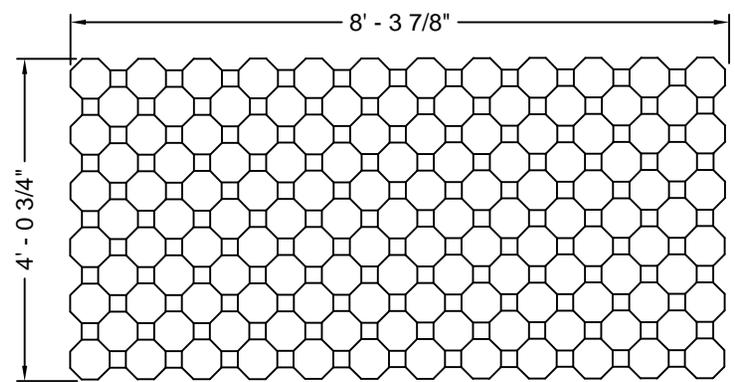
INDIVIDUAL TRI-HEX KEYSTONE PATTERN



INDIVIDUAL TORTOISE SHELL PATTERN



TRI-HEX KEYSTONE TEMPLATE



TORTOISE SHELL TEMPLATE

NOTE:
THE TRI-HEX KEYSTONE TEMPLATE SHALL BE USED IN DESIGNATED
CROSSWALK ZONES ONLY.

NOTE:
THE TORTOISE SHELL TEMPLATE SHALL BE USED ON RAISED MEDIAN ONLY.



STANDARD
DETAIL

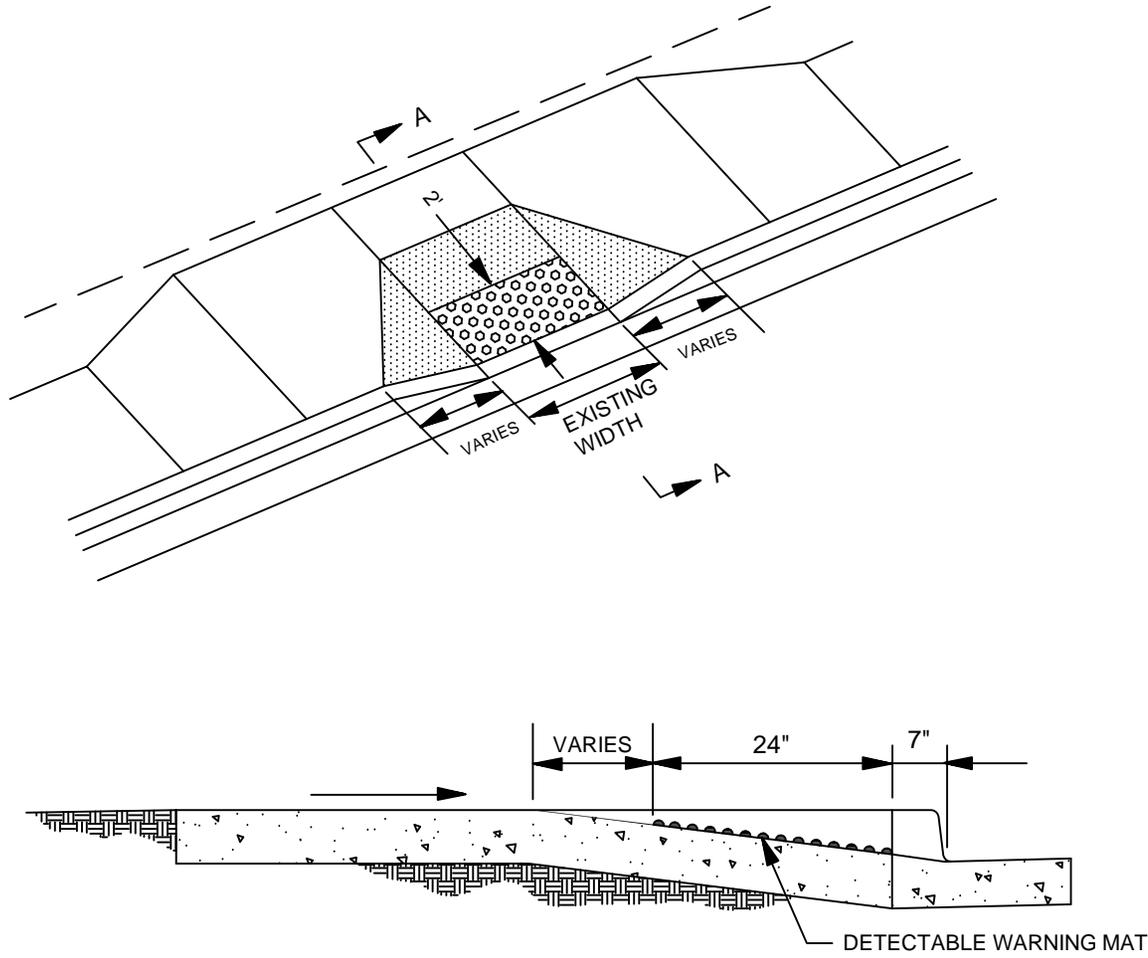
ASPHALT STAMPING DETAIL
TRI-HEX KEYSTONE & TORTOISE SHELL TEMPLATE

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-251



SECTION A - A

NOT TO SCALE



STANDARD
DETAIL

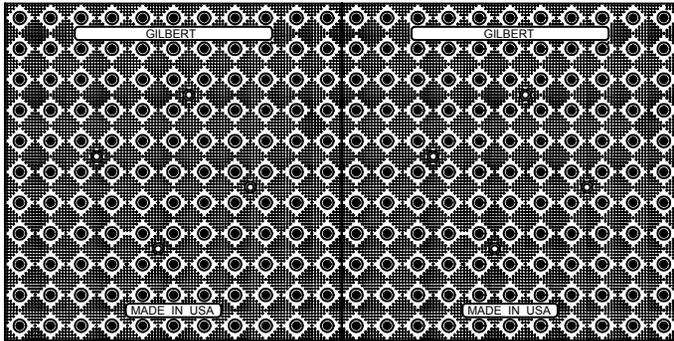
DETECTABLE WARNING MAT
EXISTING RAMPS

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-260



PLAN VIEW

NOTES:

1. GILBERT LETTERING MUST BE SHOWN ON EACH SECTION AS SHOWN IN THE DRAWINGS.
2. DETECTABLE WARNING PANELS SHALL CONSIST OF THE APPROPRIATE CAST IRON GRADE MANUFACTURED BY NEENAH FOUNDRY COMPANY OR AN APPROVED EQUAL "PATINA". APPLIED AS A WET SET APPLICATION. ALSO REFER TO MAG FOR BROOM FINISH AND SHALL CONFORM TO THE DETAILS IN THE PLANS AND IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS.
3. INSTALLATION SHALL START AT BACK OF CURB 24" DEPTH, AND COVER COMPLETE WIDTH OF RAMP. DOMES SHALL BE ALIGNED IN DIRECTION OF TRAVEL TOWARD THE RAMP ON THE OPPOSITE SIDE OF STREET.
4. PLEASE CONTACT T.O.G. STREETS DEPARTMENT FOR ADDITIONAL QUESTIONS AT (480)503-6400.

NOT TO SCALE



STANDARD
DETAIL

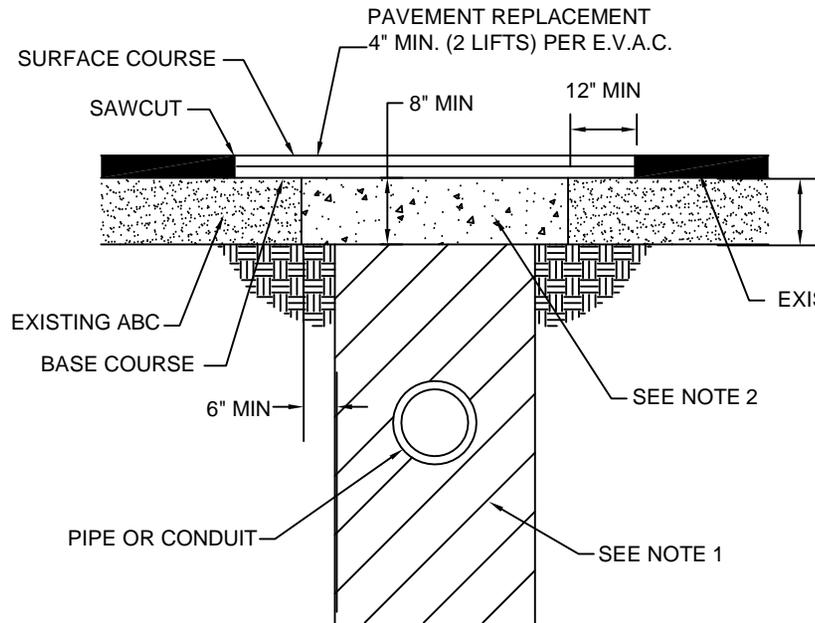
DETECTABLE WARNING PANEL DETAIL
NEW RAMP

APPROVED

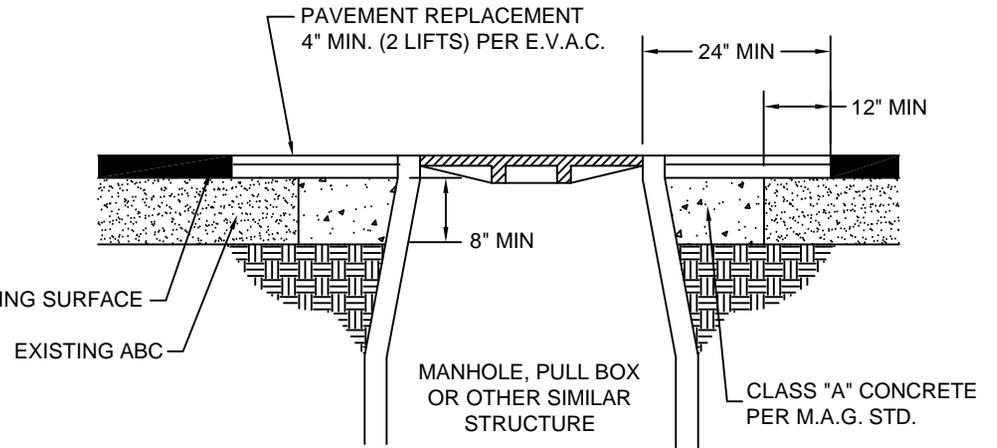
TOWN ENGINEER

DATE

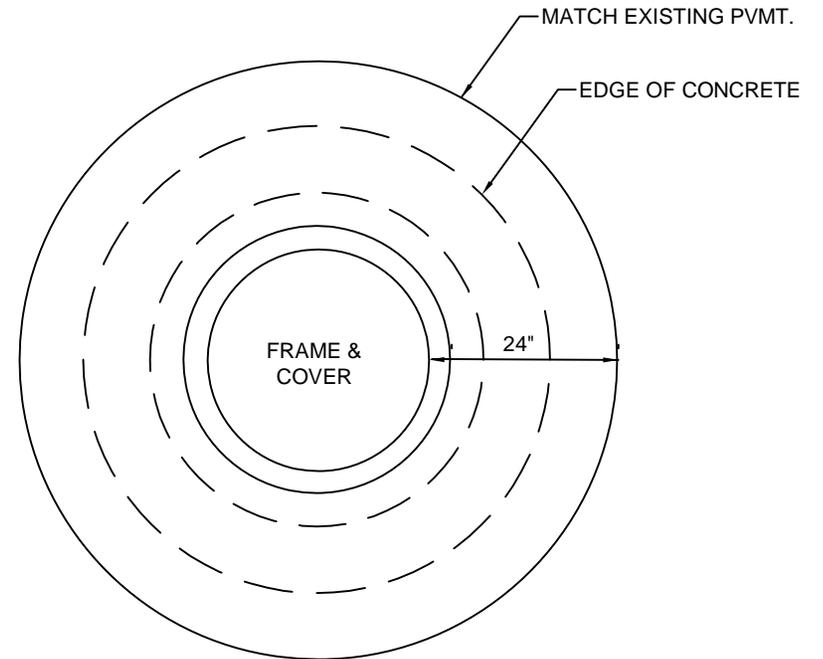
DETAIL No.
GIL-261



"T"-TOP



MANHOLE ADJUSTMENT



NOTES:

1. FULL DEPTH, HALF SACK CLSM SLURRY PER M.A.G SPEC. 604 AND 728
2. HALF SACK CLSM SLURRY PER M.A.G. STD. THICKNESS AND M.A.G. SPEC 604 AND 728 TO MATCH EXISTING A.B.C. OR 8" MINIMUM
3. FOR TRANSVERSE TRENCH ONLY.

E.V.A.C. DENOTES EAST VALLEY ASPHALT COMMITTEE



STANDARD
DETAIL

BACKFILL, PAVEMENT &
SURFACE REPLACEMENT

APPROVED

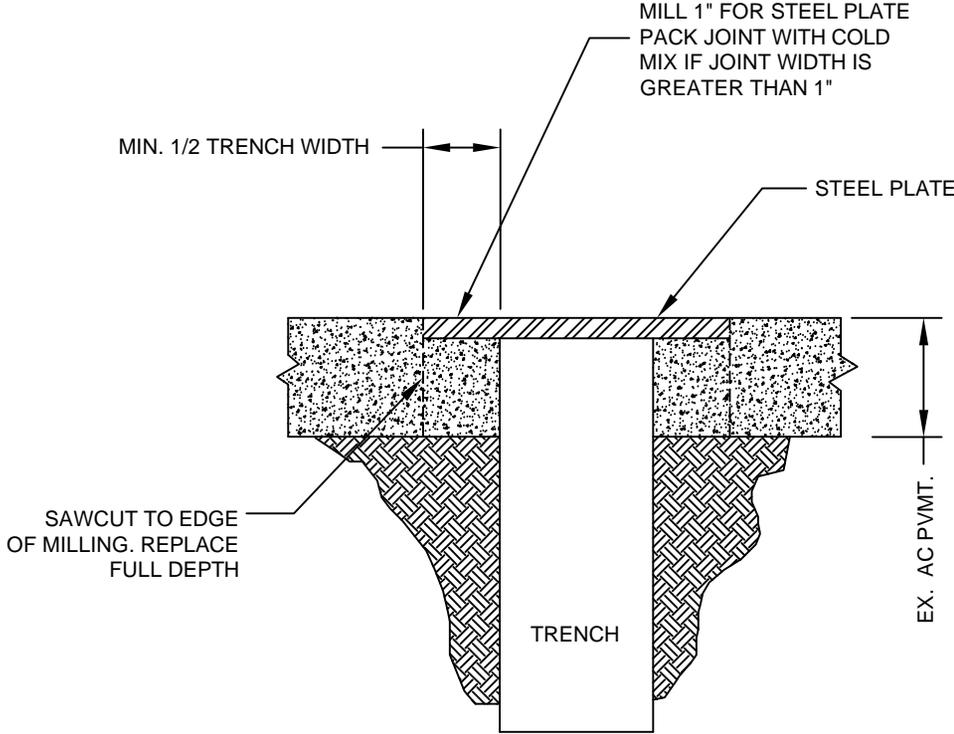
TOWN ENGINEER

DATE

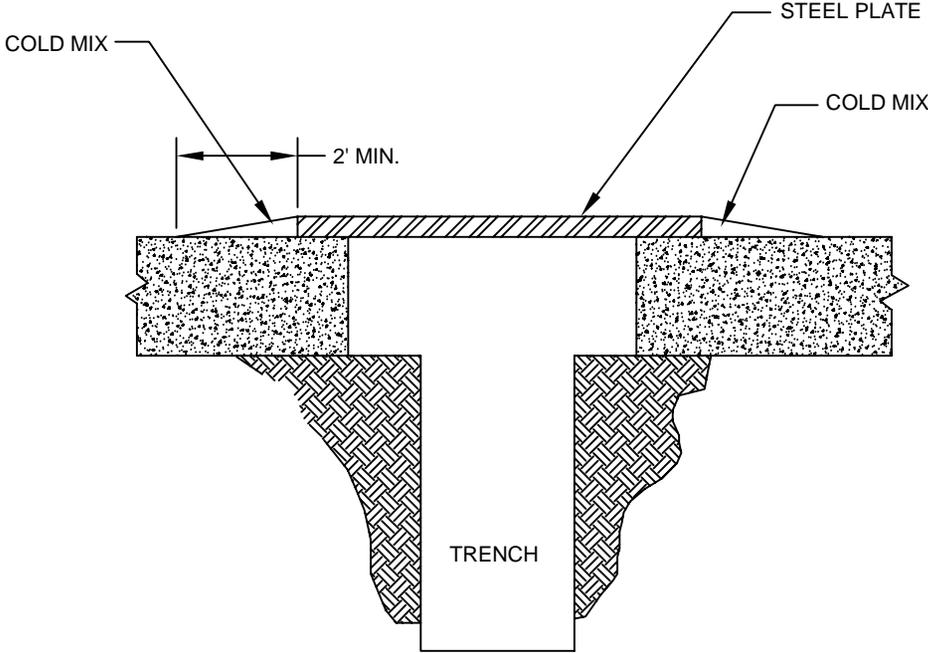
DETAIL No.
GIL-270

NOTES:

1. THE CONTRACTOR SHALL PROVIDE ADEQUATE OVERLAP OF PLATE ON ASPHALT TO ASSURE NO SLIPPAGE OF PLATE AND NO COLLAPSING OF TRENCH.
2. "POSTED SPEED" DOES NOT INCLUDE TEMPORARY CONSTRUCTION SIGNING.
3. MINIMUM PLATE SIZE OF 4' X 4' X 1" CAN BE USED FOR EXCAVATIONS OF 2 FEET WIDE OR 2 SQUARE FEET. LARGER PLATES ARE REQUIRED FOR ANY EXCAVATION LARGER THAN THOSE LISTED ABOVE. PLATES SMALLER THAN 4' X 4' X 1" ARE NOT ALLOWED IN THE TOWN RIGHT OF WAY



TYPE "A" PLATING
TOWN POSTED SPEEDS OF
30 MPH AND GREATER
OR BUS OR TRUCK ROUTES



TYPE "B" PLATING
TOWN POSTED SPEEDS
UNDER 30 MPH



STANDARD
DETAIL

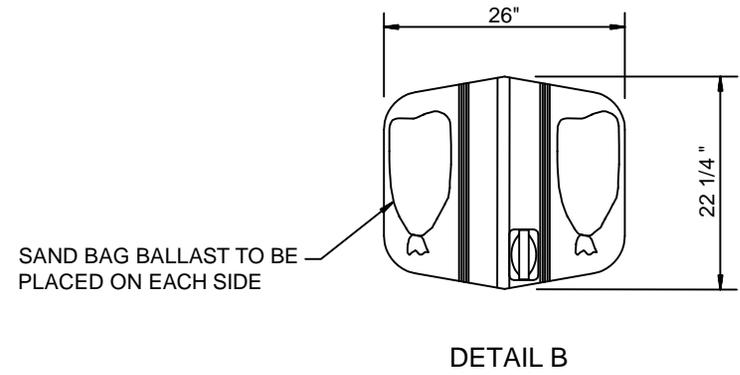
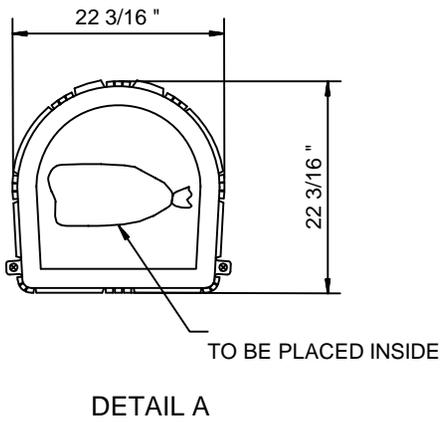
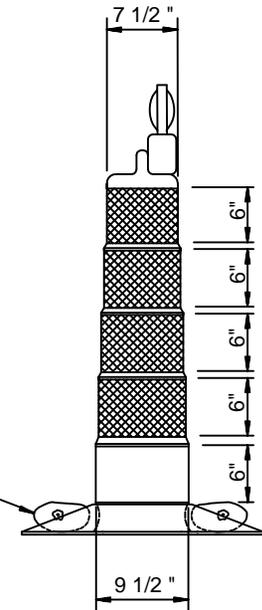
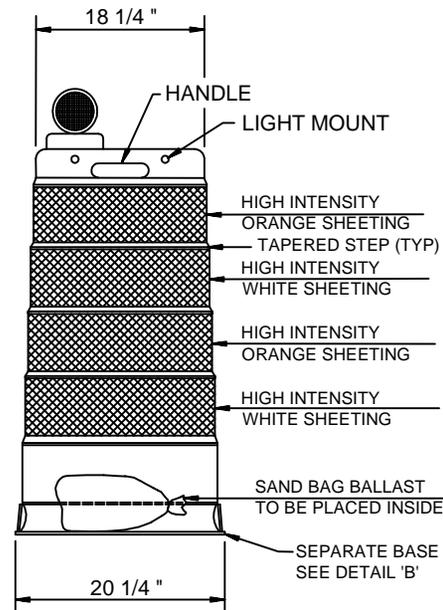
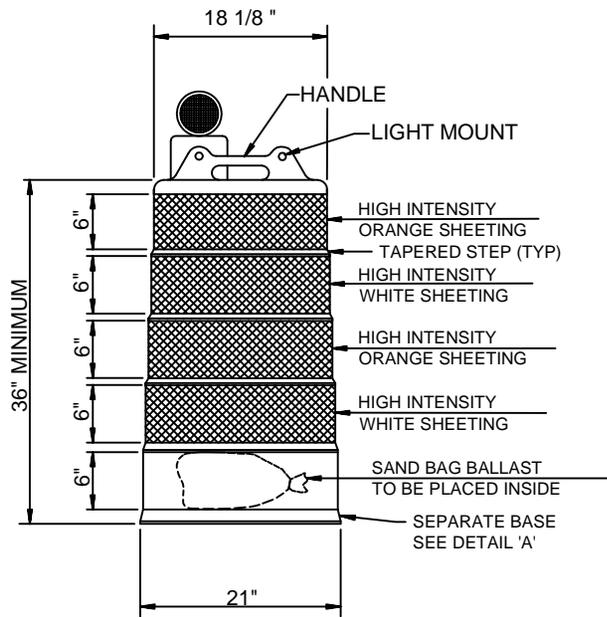
TRENCH PLATING

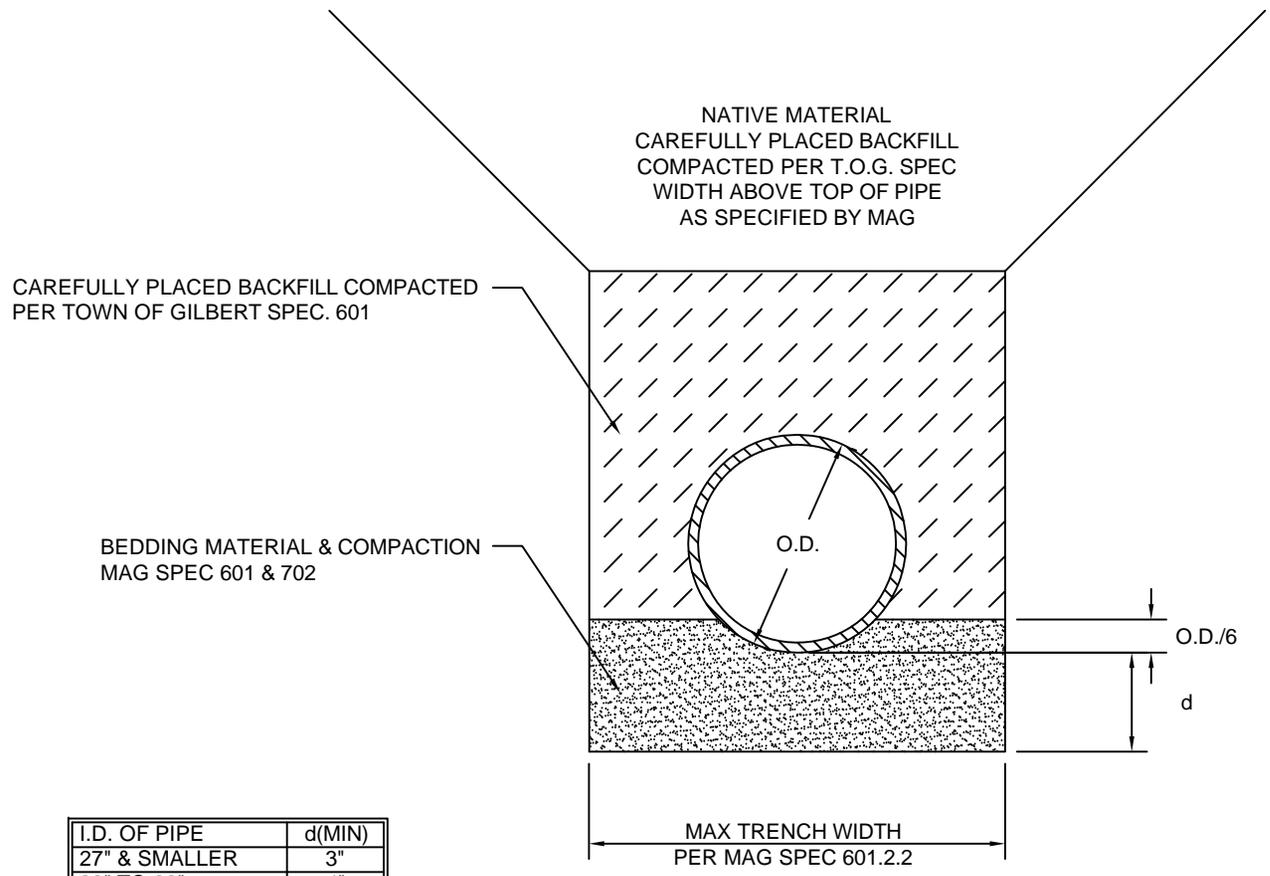
APPROVED

TOWN ENGINEER

DATE

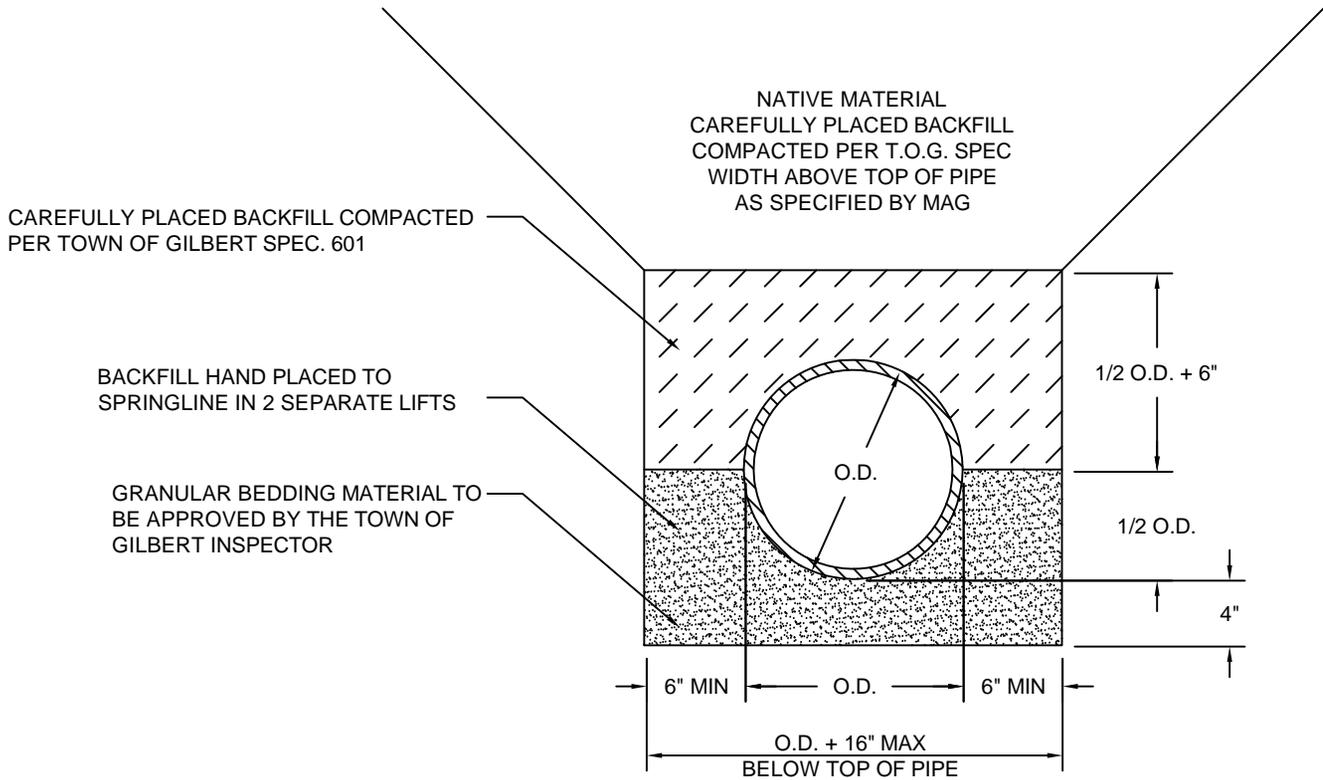
DETAIL No.
GIL-271





I.D. OF PIPE	d(MIN)
27" & SMALLER	3"
30" TO 60"	4"
66" & LARGER	6"

CONCRETE PIPE BEDDING DETAIL



PVC WATER PIPE BEDDING DETAIL
C-900



STANDARD
DETAIL

BEDDING DETAIL C-900 WATER PIPE

APPROVED

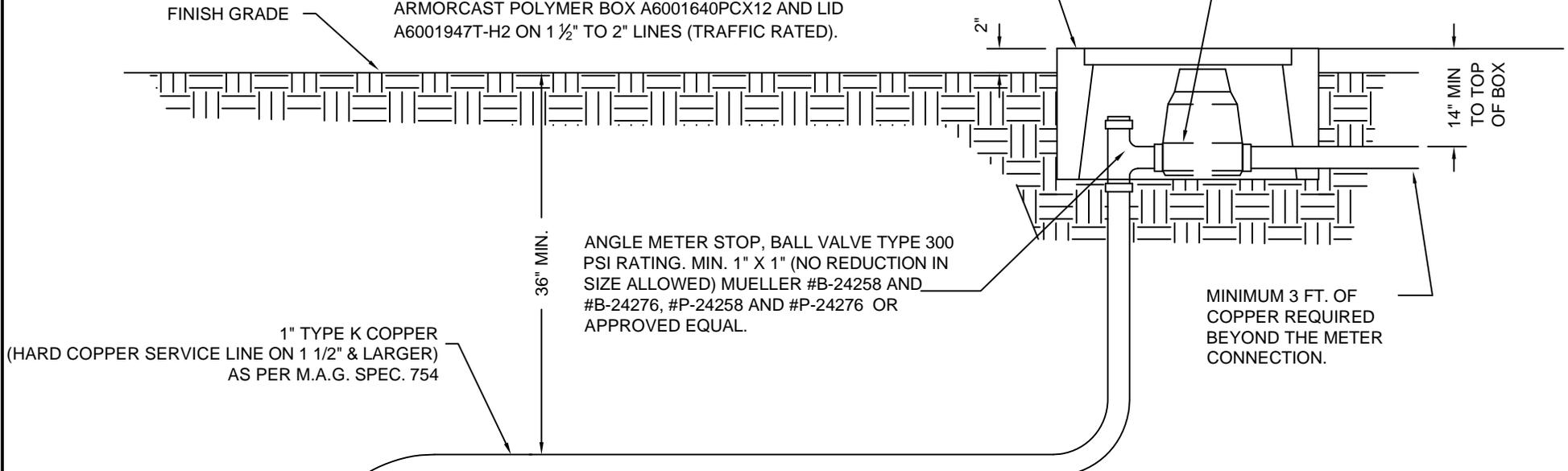
TOWN ENGINEER

DATE

DETAIL No.
GIL-302

ARMORCAST BOX #P6000485 AND LID A6000484-H2 ON 1" LINES (PEDESTRIAN RATED).
 ARMORCAST BOX #A6000485 AND LID A6000484T-H2 ON 1" LINES (TRAFFIC RATED).
 ARMORCAST ROTOCAST BOX P6001854X12 AND LID A6001852-H2 ON 1 1/2" TO 2" LINES (PEDESTRIAN RATED).
 ARMORCAST POLYMER BOX A6001640PCX12 AND LID A6001947T-H2 ON 1 1/2" TO 2" LINES (TRAFFIC RATED).

TOWN OF GILBERT TO FURNISH & INSTALL METER WHEN ORDERED/PAID FOR BY OWNER

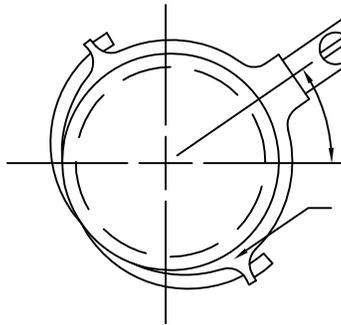


1" TYPE K COPPER (HARD COPPER SERVICE LINE ON 1 1/2" & LARGER) AS PER M.A.G. SPEC. 754

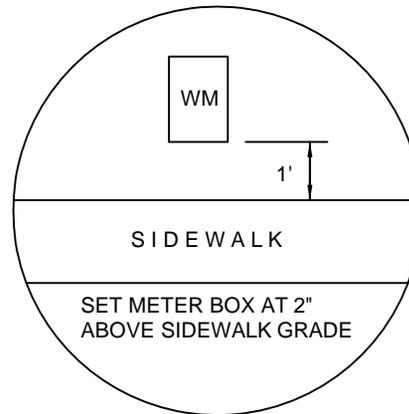
36" MIN. ANGLE METER STOP, BALL VALVE TYPE 300 PSI RATING. MIN. 1" X 1" (NO REDUCTION IN SIZE ALLOWED) MUELLER #B-24258 AND #B-24276, #P-24258 AND #P-24276 OR APPROVED EQUAL.

MINIMUM 3 FT. OF COPPER REQUIRED BEYOND THE METER CONNECTION.

BALL STYLE CORPORATION STOP W/IP THREADS. MUELLER P-25028 OR APPROVED EQUAL



MUELLER CORPORATION SADDLE OR APPROVED EQUAL



NOTES:

1. PRIOR TO INSTALLATION OF ANY WATER SERVICE, CONTRACTOR SHOULD VERIFY DRIVEWAY LOCATIONS. METER BOXES SHALL BE SET IN TOWN ROW IN DIRT AREAS OF PARKWAY.
2. CONTRACTOR SHALL ADJUST METER BOX TO 2" ABOVE FINISHED GRADE PRIOR TO FINAL APPROVAL BY THE TOWN ENGINEER.
3. WATER SERVICE LINES AND METER SHALL BE SIZED PER THE IPC CODE OR AWWA PRACTICES.
4. MINIMUM SERVICE SIZE FOR RESIDENTIAL IS 1" DIAMETER.
5. ALL BRASS PARTS MUST MEET NSF 61 LOW LEAD REQUIREMENTS AS OF JULY 1, 2012.
6. SERVICES INSTALLED WITHOUT METER BOX SHALL BE MARKED WITH A 1" FLEXIBLE BLUE CONDUIT OR WOOD 2"X4".



STANDARD
DETAIL

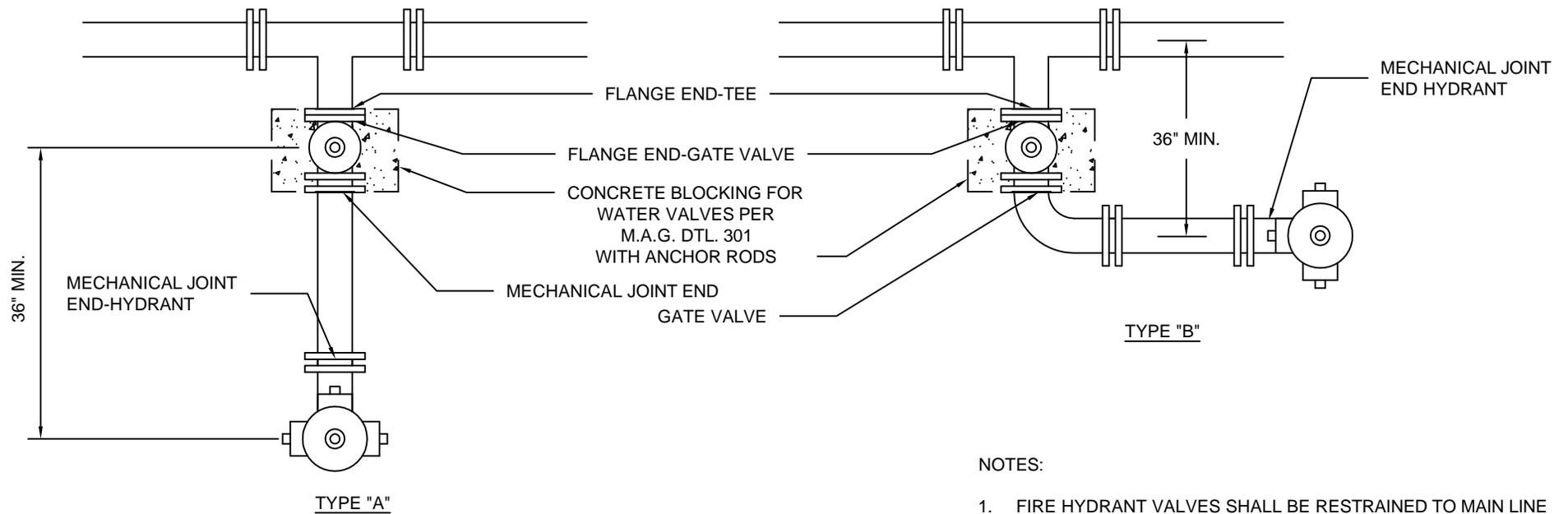
1" TO 2" WATER SERVICE INSTALLATION

APPROVED

TOWN ENGINEER

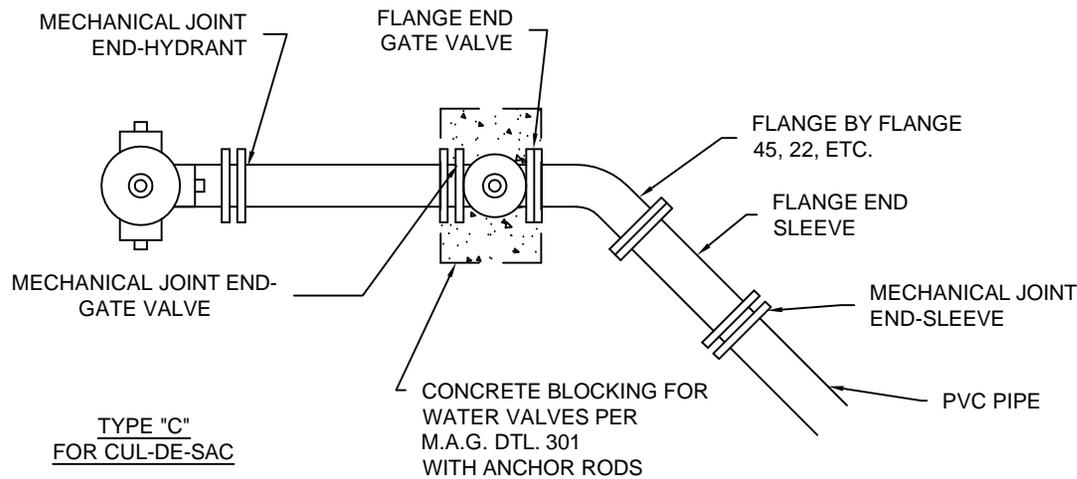
DATE

DETAIL No.
GIL-310



NOTES:

1. FIRE HYDRANT VALVES SHALL BE RESTRAINED TO MAIN LINE FITTING BY FLANGE.
2. FIRE HYDRANTS SHALL CONFORM TO T.O.G. FIRE HYDRANT SPECIFICATIONS
3. CONNECTIONS SHALL BE 2 1/2" N.S. & 4 1/2" N.S. THREADS.
4. VALVE BOX INSTALLATION PER M.A.G. DTL. 391-1-C.
5. ALL CONNECTIONS FROM THE MAIN LINE FITTING TO THE HYDRANT SHALL BE DUCTILE IRON.
6. CONSTRUCT DRAIN PIT PER M.A.G. DTL. 360-1.
7. LOCATE FIRE HYDRANT PER M.A.G. DETAIL 362
8. ELEVATION OF FIRE HYDRANT SHALL BE PER GIL-320-2.



STANDARD
DETAIL

FIRE HYDRANT

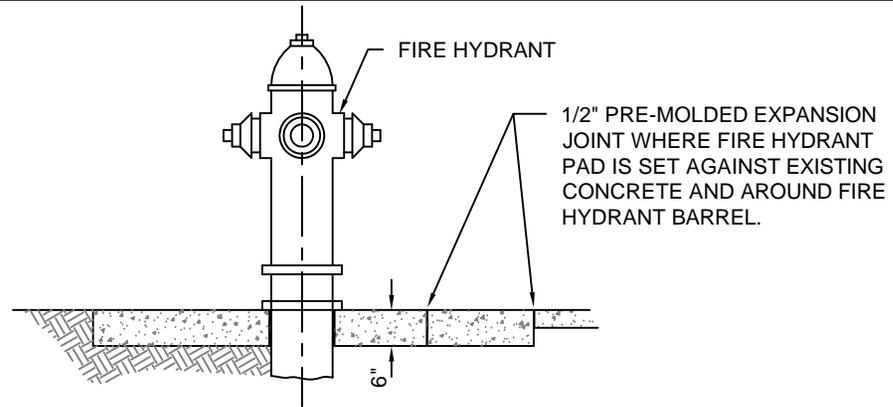
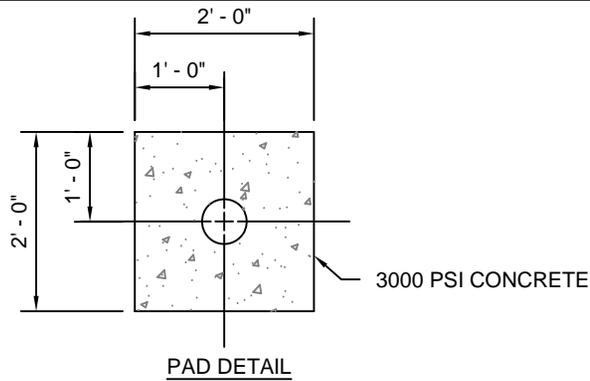
APPROVED

TOWN ENGINEER

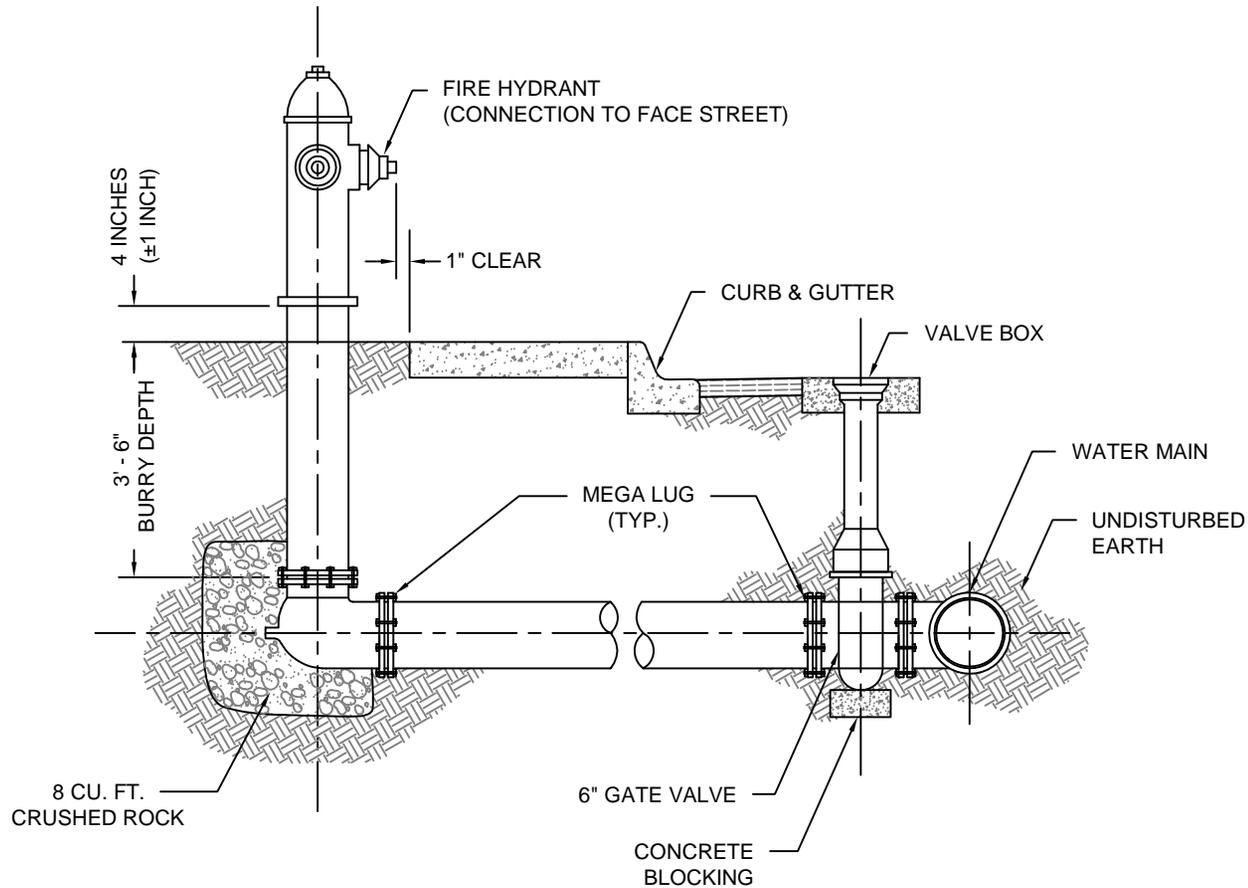
DATE

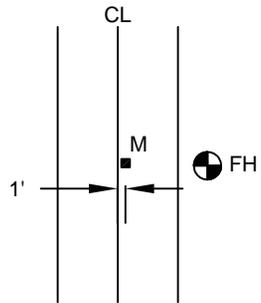
DETAIL No.

GIL-320-1

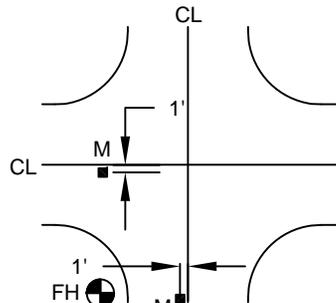


FIRE HYDRANT IN SIDEWALK

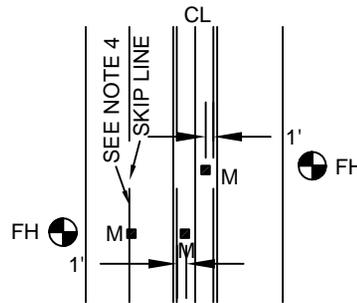




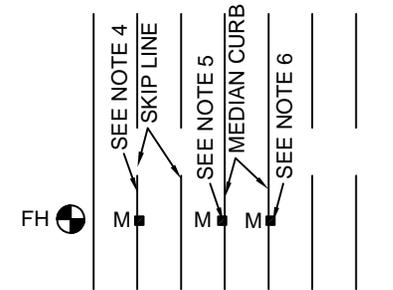
MIDBLOCK LOCAL



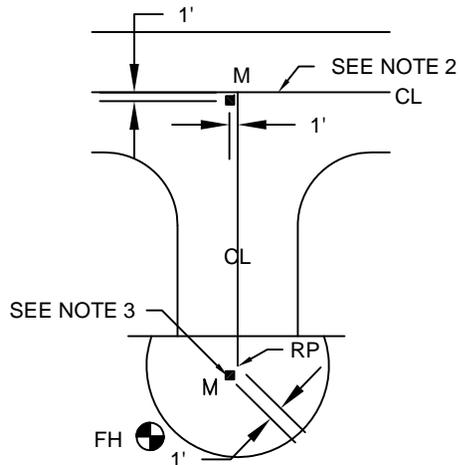
LOCAL CROSS INTERSECTION



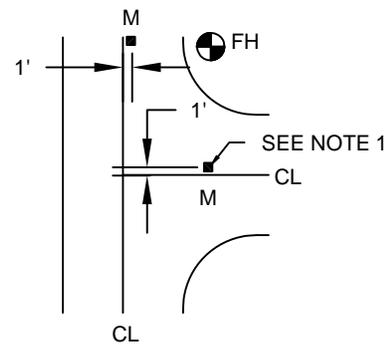
MIDBLOCK WITH CENTER LANE OR SKIP LINES



MIDBLOCK WITH RAISED MEDIAN

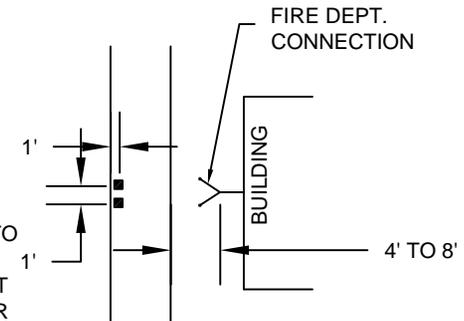


CUL-DE-SAC STREET

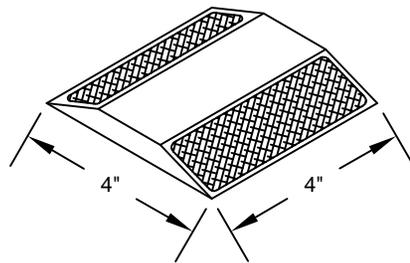


LOCAL 'T' INTERSECTION

2 MARKERS
1' APART
PLACEMENT TO
BE SAME AS
(M) PAVEMENT
MARKERS FOR
HYDRANTS



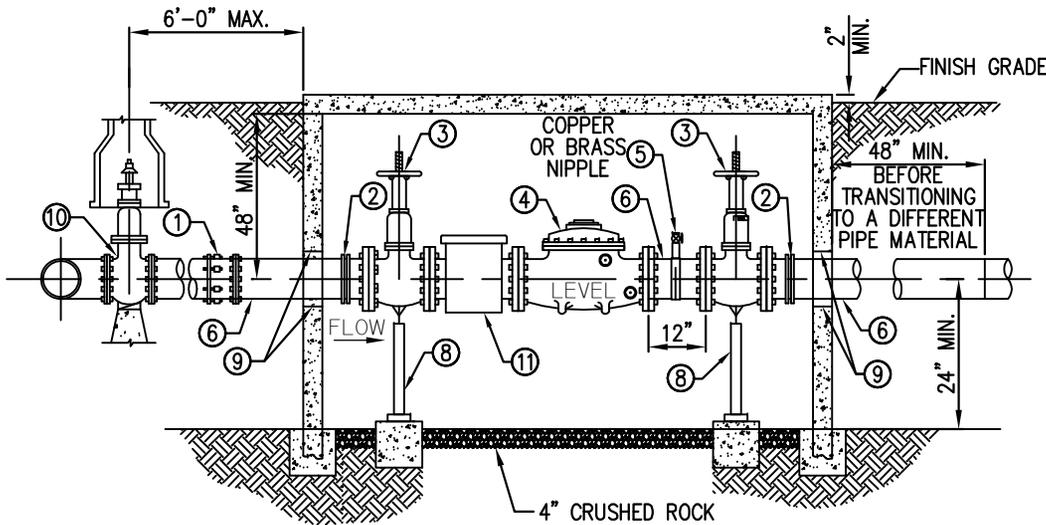
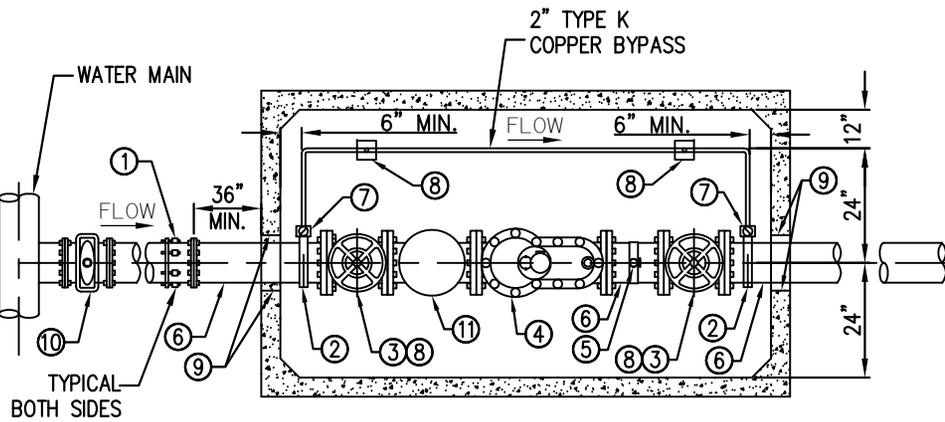
FIRE DEPT. CONNECTION



(M) PAVEMENT MARKER
(2-WAY REFLECTIVE BLUE)

NOTES:

1. NOT REQUIRED ON DEAD END STREETS WITHOUT HYDRANTS.
2. PLACE ON HYDRANT SIDE OF THE CENTERLINE.
3. NOT REQUIRED WHEN CUL-DE-SAC IS LESS THAN 250'.
4. TO BE PLACED IN LINE WITH SKIP LINE.
5. PLACED ON GUTTER OR ADJACENT TO CURB.
6. PLACE ON TOP OF CURB. (THIS LOCATION OPTIONAL)
7. PAVEMENT MARKERS SHALL NOT BE PLACED WITHIN ONE FOOT OF A PAINT LINE. (CENTER TO CENTER)



LIST OF MATERIALS

1. ADAPTER, FLANGED TO MECHANICAL JOINT FOR A.C.P.
2. DOUBLE STRAP, ALL BRONZE SERVICE SADDLE.
3. O.S.&Y. RISING STEM GATE VALVE, FLANGED WITH HAND WHEEL, OPEN LEFT, APPROVED RESILIENT WEDGE GATE VALVES INCLUDE MUELLER, AMERICAN DARLING, AND WATEROUS.
4. WATER METER: CONTACT TOWN OF GILBERT
5. DOUBLE STRAP BRONZE SADDLE, COPPER OR BRASS NIPPLE AND GATE VALVE.

2" FOR 3"/4" METER
3" FOR 6" METER
6. C.I.P. SPOOL, FLANGED BOTH ENDS.
7. 2" CURB STOP (BALL TYPE) WITH LOCKABLE DEVICE.
8. ADJUSTABLE METAL PIPE SUPPORTS ON 6"x6"x6" CONCRETE BASE. (4) REQUIRED (ONE UNDER EACH VALVE AND 2 UNDER THE BY PASS).
9. GROUT WALLS OF VAULT AT EACH PIPE OPENING.
10. GATE VALVE, VALVE BOX, AND COVER PER M.A.G. STANDARD DETAIL 391-1, TYPE "C".
11. STRAINER ON INLET SIDE OF METER.

NOTE:

ALL METERS SHALL BE PURCHASED FROM TOWN OF GILBERT.



STANDARD
DETAIL

3", 4" & 6" WATER METER

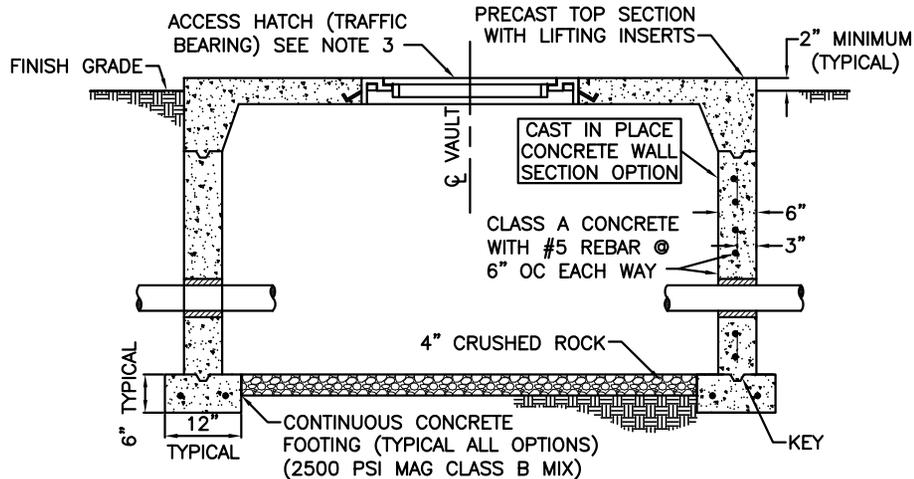
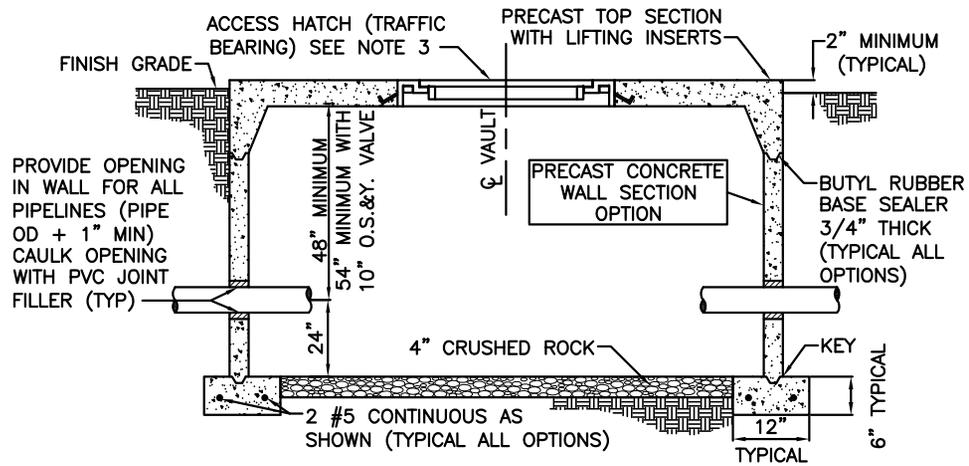
APPROVED

TOWN ENGINEER

DATE

DETAIL No.

GIL-340-1



CONSTRUCTION NOTES:

1. METER VAULT SHALL BE LOCATED IN AREA IMMEDIATELY ADJACENT TO, OR BE ACCESSIBLE FROM, A PERMANENT VEHICULAR ACCESS ROAD (BUT NOT IN A TRAFFIC AREA).
2. METER VAULT WALLS MAY BE CONSTRUCTED OF CAST-IN-PLACE CONCRETE, OR PRECAST CONCRETE. TOP SECTION SHALL BE PRECAST CONCRETE WITH LIFTING INSERTS AND ACCESS HATCH INSTALLED BY PRECAST MANUFACTURER.
3. ACCESS HATCH SHALL BE 42" SQUARE TYPE "J" SPECIAL AS MANUFACTURED BY THE BILCO COMPANY OR 42" SQUARE AS MANUFACTURED BY UTILITY VAULT COMPANY. THE HATCH SHALL BE FLUSH MOUNTED, TORSION ASSISTED WITH REMOVABLE HANDLE OR PENTA HEAD BOLTS. THE HATCH SHALL BE DIAMOND PATTERN ALUMINUM. ALL SURFACES IN CONTACT WITH CONCRETE SHALL BE COATED WITH COAL TAR EPOXY.
4. SEE TABLE FOR MINIMUM INTERIOR VAULT DIMENSIONS REQUIRED BY VARIOUS TYPES AND SIZES OF WATER METERS.

METER TYPE	METER SIZE	METER INSIDE VAULT DIMENSIONS*		
		WIDTH	LENGTH	HEIGHT
METER	3"	6'-0"	6'-3"	6'-0"
	4"	6'-0"	7'-6"	6'-0"
	6"	6'-9"	8'-6"	6'-0"
	8"	6'-9"	8'-6"	6'-0"

* DIMENSION SHOWN REPRESENT ACCEPTABLE MINIMUMS. CONTRACTOR SHALL VERIFY THAT SPECIFIED MINIMUM CLEAR DISTANCES BETWEEN PIPING AND VAULT ARE PROVIDED BASED ON ACTUAL EQUIPMENT BEING FURNISHED. (MINIMUM WIDTH OF VAULTS TO BE 6'-0".)

NOTE:

METER VAULTS SHALL NOT BE INSTALLED IN DRIVEWAYS OR IN A LOCATION INACCESSIBLE TO MAINTENANCE VEHICLES. ALL METERS SHALL BE PURCHASED FROM THE TOWN OF GILBERT.



STANDARD
DETAIL

STANDARD WATER METER VAULT

APPROVED

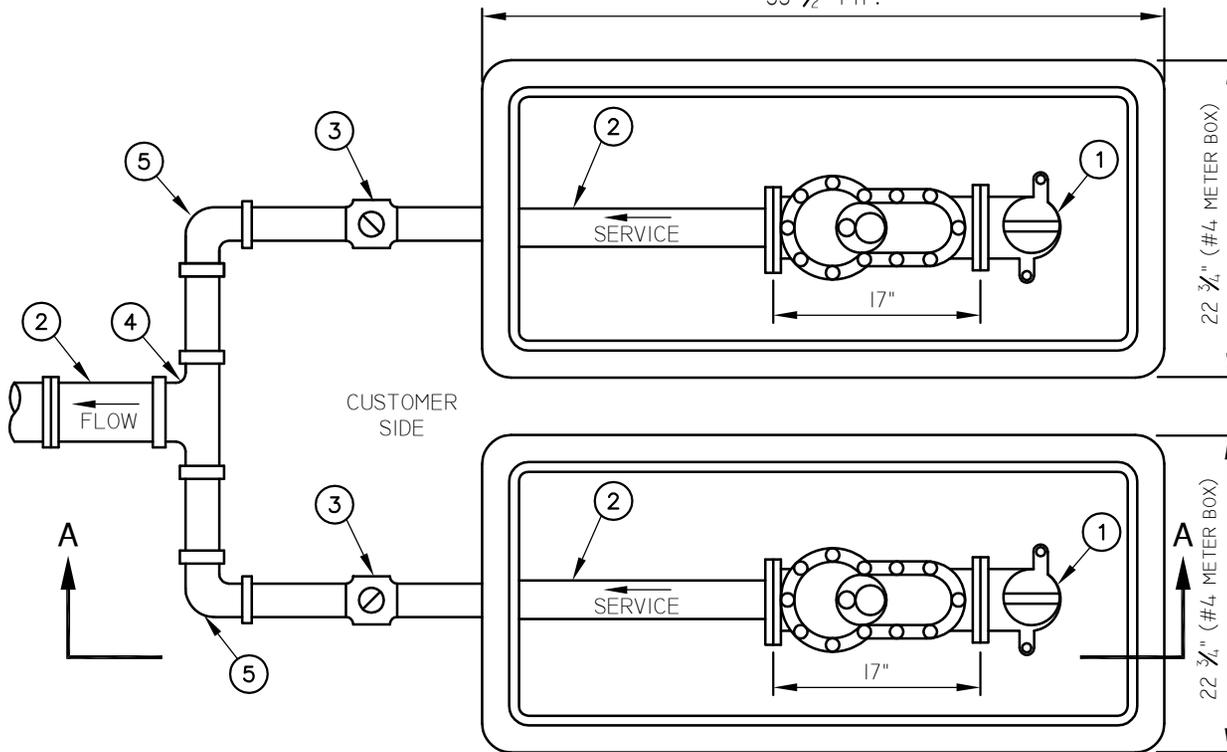
TOWN ENGINEER

DATE

DETAIL No.

GIL-340-2

33" 1/2" IYP.

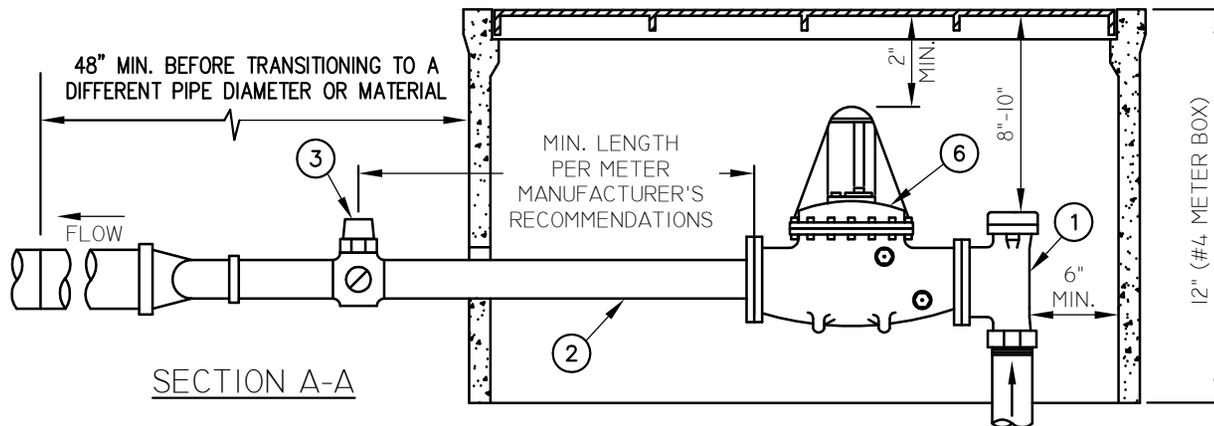


LIST OF MATERIALS

- ① 2" ANGLE METER VALVE (LOCKING TYPE) - INLET SERVICE LINE.
- ② TYPE K COPPER.
- ③ 2" CURB STOP WITH VALVE BOX AND COVER.
- ④ 2"X3"X2" COPPER TEE SOLDERED
- ⑤ 2" COPPER 90° BEND SOLDERED
- ⑥ WATER METER: CONTACT TOWN OF GILBERT

NOTES

1. TOP OF WATER METER SHALL BE A MINIMUM OF 2" BELOW UNDERSIDE OF COVER.
2. METERS SHALL NOT BE INSTALLED IN DRIVEWAYS OR IN A LOCATION INACCESSIBLE FOR MAINTENANCE.



STANDARD
DETAIL

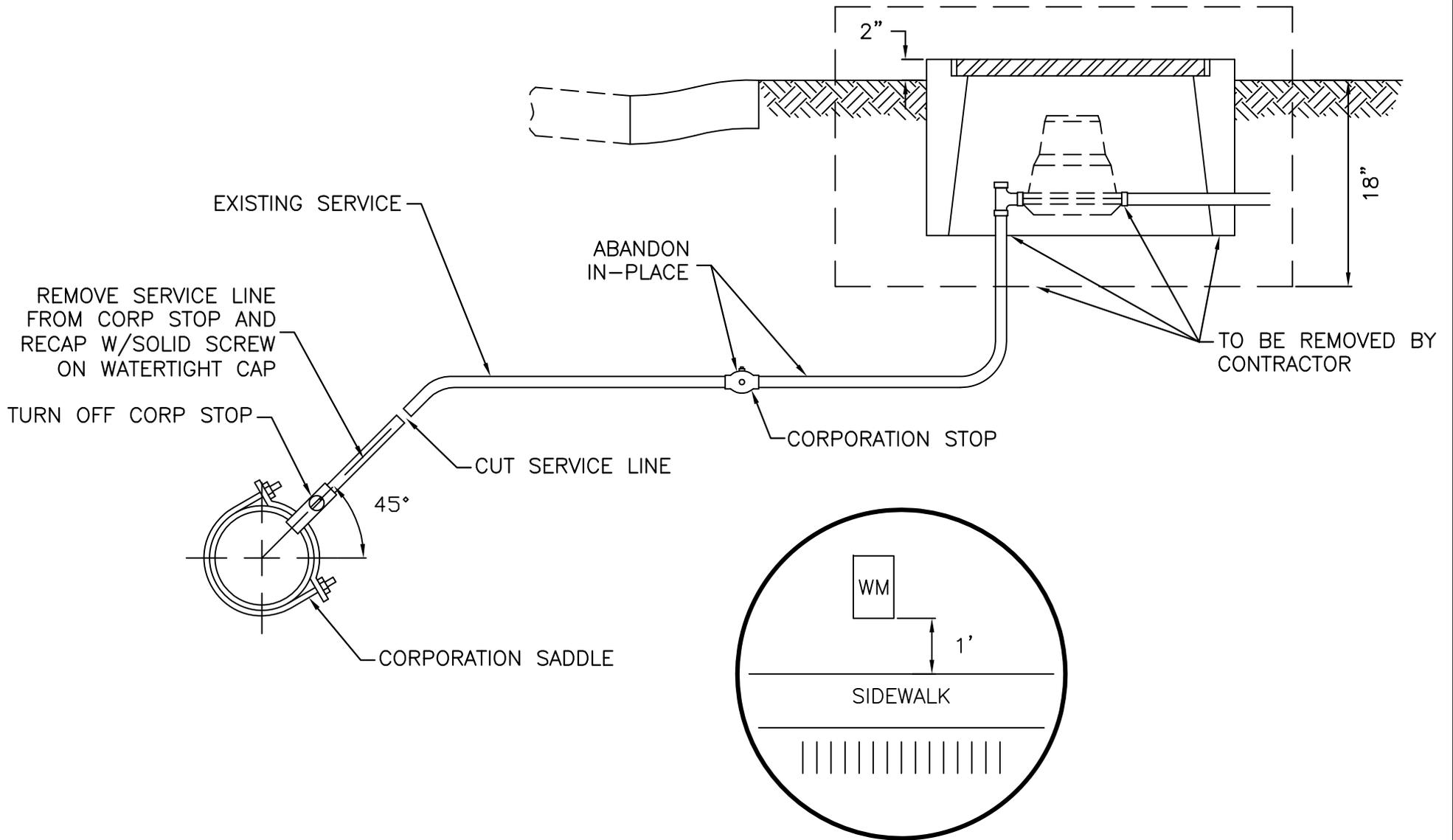
PARALLEL 2" WATER METER VAULT

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-345



STANDARD
DETAIL

1" TO 2" WATER SERVICE
ABANDONMENT

APPROVED

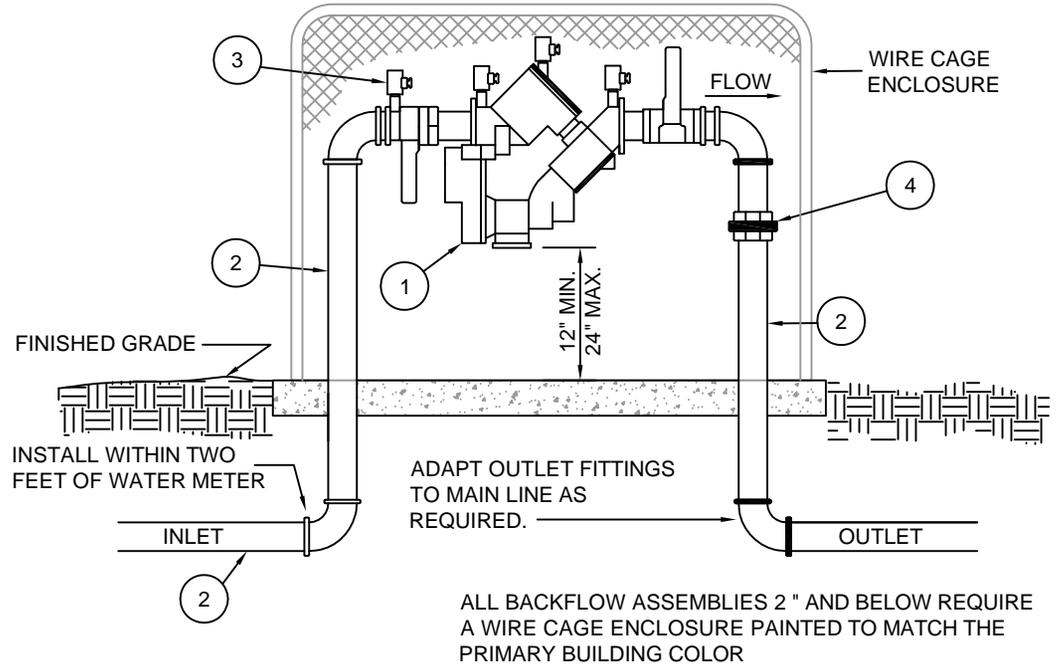
TOWN ENGINEER

DATE

DETAIL No.
GIL-349

LIST OF MATERIALS:

- ① APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER ASSEMBLY, BALL VALVES INCLUDED.
- ② PIPING SHALL BE TYPE "K" HARD COPPER (3/4" THRU 2 1/2") USING LEAD-FREE SOLDER. 3" OR LARGER TO BE D.I.P..
- ③ BRASS FLARED TEST FITTINGS ARE REQUIRED ON ALL TEST COCKS
- ④ BRASS OR COPPER UNION (INSTALL ON DISCHARGE SIDE).
- ⑤ HEIGHT REQUIREMENTS FOR ASSEMBLIES (12" MIN. 18" MAX.).



GENERAL NOTES

1. CONTACT THE TOWN OF GILBERT BACKFLOW PREVENTION DEPARTMENT FOR THE MOST CURRENT LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.
2. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS CONNECTION AND HYDRAULIC RESEARCH.
3. ABOVE GROUND INSTALLATIONS SHALL BE PROTECTED BY GUARD POSTS. SEE DETAIL GIL-359.
4. ASSEMBLY SHALL BE INSTALLED LEVEL AND NOT IN A FLOOD PLAIN.
5. ASSEMBLY SHALL BE TESTED PRIOR TO BEING ACCEPTED. (CONTACT T.O.G. BF DEPT. FOR LIST OF CERTIFIED TESTERS.).
6. ASSEMBLY SHALL NOT BE INSTALLED ANY CLOSER THAN 24" FROM A WALL OR OBSTRUCTION (IF TEST COCKS FACE THE WALL) OR 12" FROM A WALL (IF TEST COCKS FACE AWAY).
7. CONCRETE SUPPORT PAD SHALL BE A MINIMUM OF 18" WIDE BY LENGTH OF PRESSURE ASSEMBLY.
8. FINISHED GRADE UNDERNEATH ASSEMBLY SHALL BE AT 95% COMPACTION.
9. ASSEMBLY SHALL NOT BE PLACED FARTHER THAN 2' FROM THE WATER METER.
10. PIPE CONNECTION BETWEEN BACKFLOW ASSEMBLY AND METER SHALL BE OF TYPE "K" COPPER.
11. NO LESS THAN 36" OF COPPER SHALL EXIST DOWNSTREAM OF BACKFLOW.
12. EPA-SWDA SECTION 1417(d), AMENDED 1-4-2014: ALL (WET) DOMESTIC BRASS PLUMBING FIXTURES NOT LIMITED TO BACKFLOW PREVENTION ASSEMBLIES SHALL CONTAIN NO GREATER THAN <0.25% TOTAL LEAD CONTENT.



STANDARD
DETAIL

2" AND SMALLER REDUCED PRESSURE PRINCIPLE ASSEMBLY

APPROVED

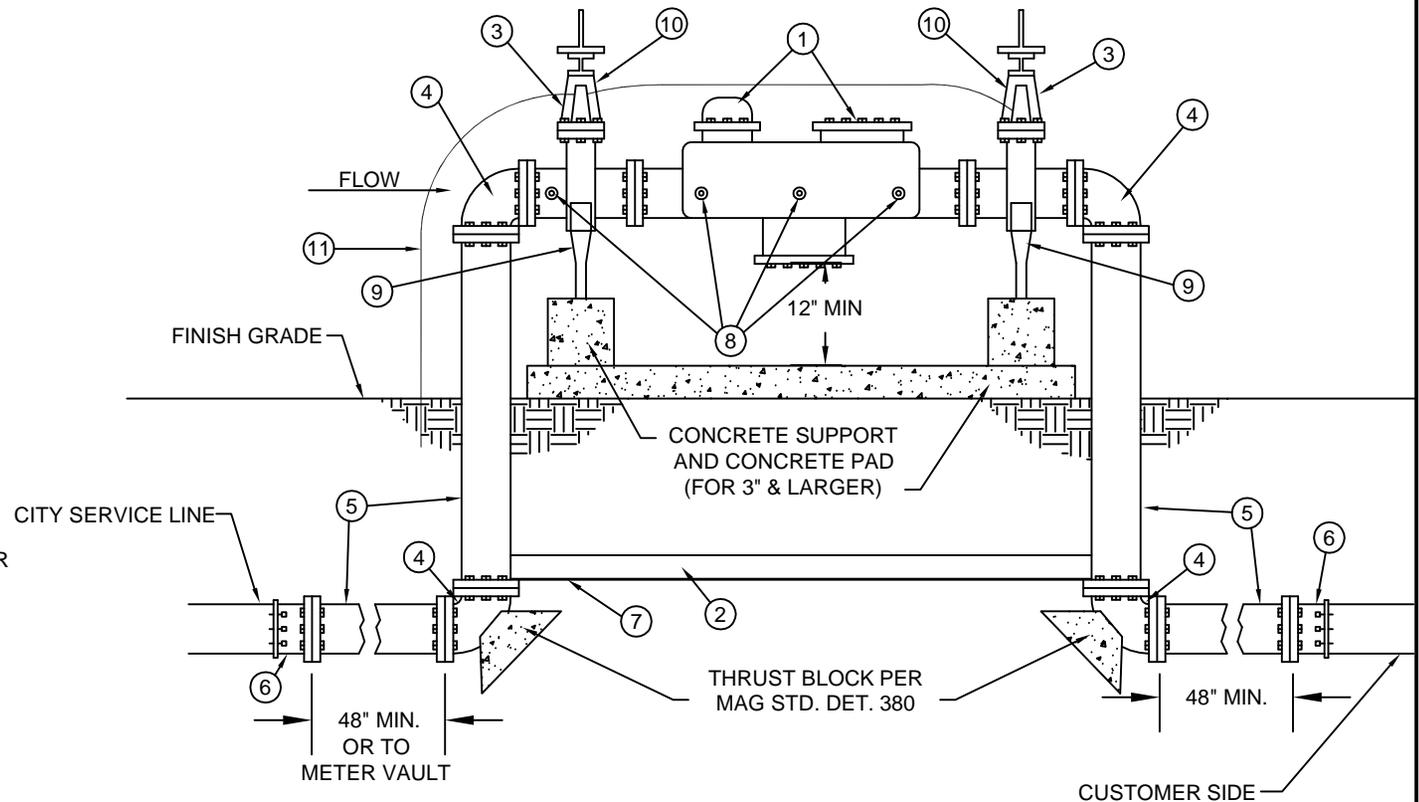
TOWN ENGINEER

DATE

DETAIL No.
GIL-350

LIST OF MATERIALS

1. APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION DEVICE.
2. COAT WITH COAL TAR EPOXY (16 MILS.).
3. O.S. & Y. GATE VALVE (RESILIENT SEAT).
4. 90 ELBOW (FLANGED D.I.P. 3" THRU 10") OR (TYPE "K" COPPER FOR 2 1/2").
5. PIPE SPOOL (FLANGED D.I.P. 3" THRU 10") OR (TYPE "K" COPPER FOR 2 1/2").
6. FLANGED ADAPTER (WHEN REQUIRED).
7. 3" X 3" X 1/4" STEEL ANGLE (FOR 4" & LARGER ASSEMBLY ONLY) BOLT TO FLANGE EACH END WITH ONE BOLT.
8. BRASS FLARED TEST FITTINGS ARE REQUIRED ON ALL TEST COCKS
9. ADJUSTABLE PIPE SUPPORT (FOR 3" & LARGER ASSEMBLY ONLY).
10. TAMPER SWITCH (ON FIRE LINE ONLY).
11. ELECTRICAL CONDUIT FOR TAMPER SWITCH (ON FIRE LINE ONLY).



GENERAL NOTES

1. CONTACT THE TOWN OF GILBERT BACKFLOW PREVENTION DEPT FOR THE LATEST LIST OF APPROVED BACKFLOW PREVENTION DEVICES.
2. ASSEMBLY SHALL BE APPROVED BY U.S.C. FOUNDATION FOR CROSS CONNECTION AND HYDRAULIC RESEARCH.
3. FOUR (4) TEST COCKS SHALL BE INSTALLED AS PER U.S.C.. TEST COCKS SHALL BE FITTED WITH BRASS FLARED TEST FITTINGS.
4. ABOVE GROUND INSTALLATIONS SHALL BE PROTECTED BY GUARD POSTS. SEE DETAIL GIL-359.
5. COPPER FITTINGS SHALL BE CONNECTED WITH LEAD-FREE SOLDER JOINTS.
6. CONCRETE SUPPORT PAD SHALL BE MIN. 12" WIDE BY LENGTH OF PRESSURE ASSEMBLY.
7. FINISHED GRADE UNDERNEATH BACKFLOW PREVENTION ASSEMBLIES SHALL BE 95% COMPACTION.
8. ASSEMBLY TO BE PAINTED TAN OR TO MATCH BUILDING.



STANDARD
DETAIL

2 1/2" AND LARGER REDUCED
PRESSURE PRINCIPLE ASSEMBLY

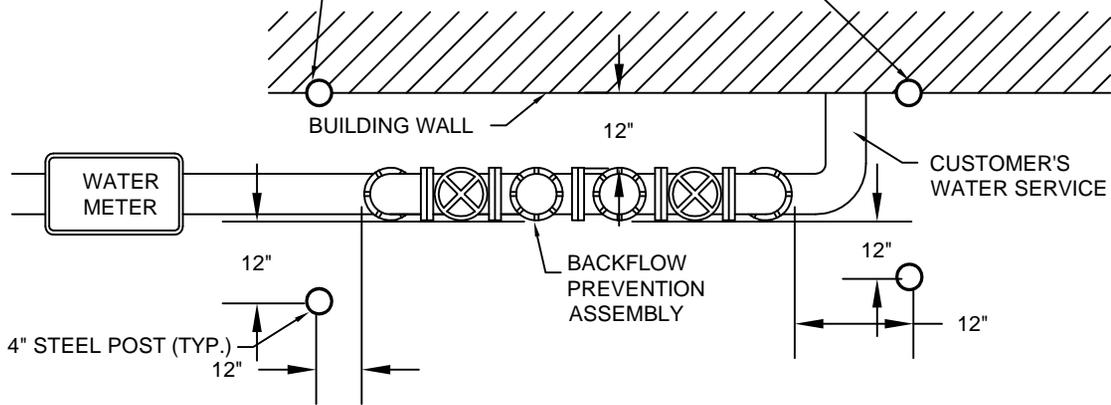
APPROVED

TOWN ENGINEER

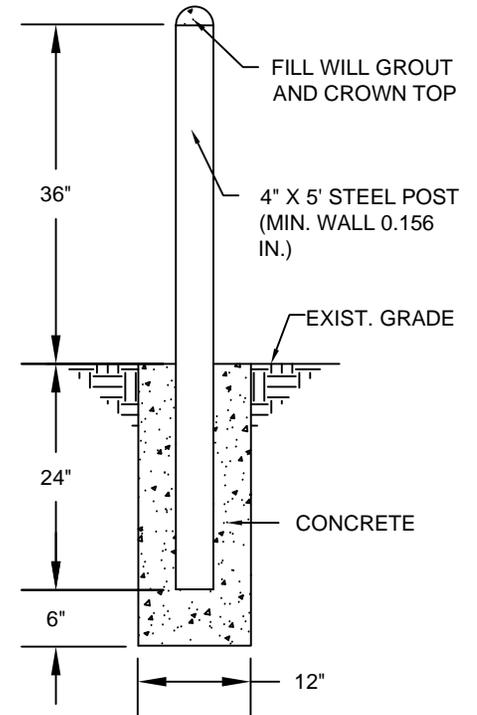
DATE

DETAIL No.
GIL-351

NOTE
 GUARD POSTS ARE REQUIRED AT THESE
 LOCATIONS IF BACKFLOW PREVENTION
 ASSEMBLY IS IN AN OPEN AREA. (NOT NEXT
 TO A BUILDING WALL OR FENCE)



GUARD POST LOCATIONS FOR BACKFLOW PREVENTION ASSEMBLY
 PLAN VIEW



GUARD POST SECTION



STANDARD
 DETAIL

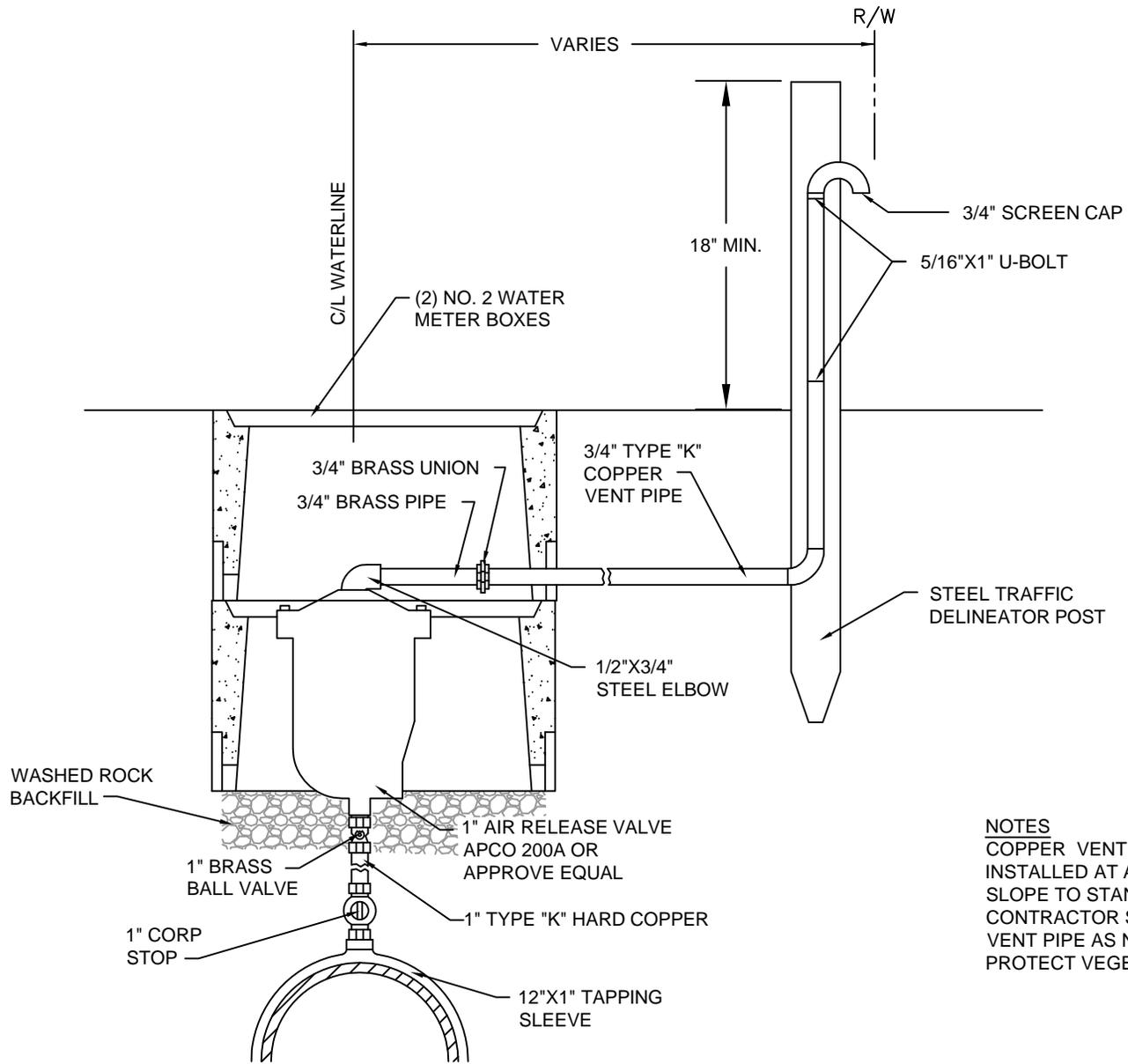
GUARD POSTS

APPROVED

 TOWN ENGINEER

 DATE

DETAIL No.
GIL-359



NOTES
 COPPER VENT PIPE TO BE
 INSTALLED AT A POSITIVE
 SLOPE TO STAND PIPE.
 CONTRACTOR SHALL LOCATE
 VENT PIPE AS NEEDED TO
 PROTECT VEGETATION.



STANDARD
 DETAIL

1" AIR RELEASE VALVE

APPROVED

 TOWN ENGINEER

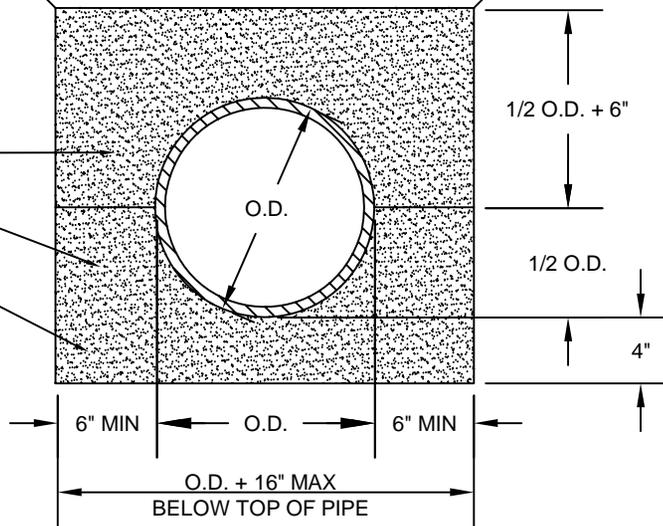
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DETAIL No.
GIL-360

GRANULAR BEDDING MATERIAL
PER TOWN OF GILBERT SPEC.
SECTION 615.5

BACKFILL HAND PLACED TO
SPRINGLINE IN 2 SEPARATE LIFTS

NATIVE MATERIAL
CAREFULLY PLACED BACKFILL
COMPACTED PER T.O.G. SPEC
WIDTH ABOVE TOP OF PIPE
AS SPECIFIED BY MAG



PVC SEWER PIPE BEDDING DETAIL
NTS



STANDARD
DETAIL

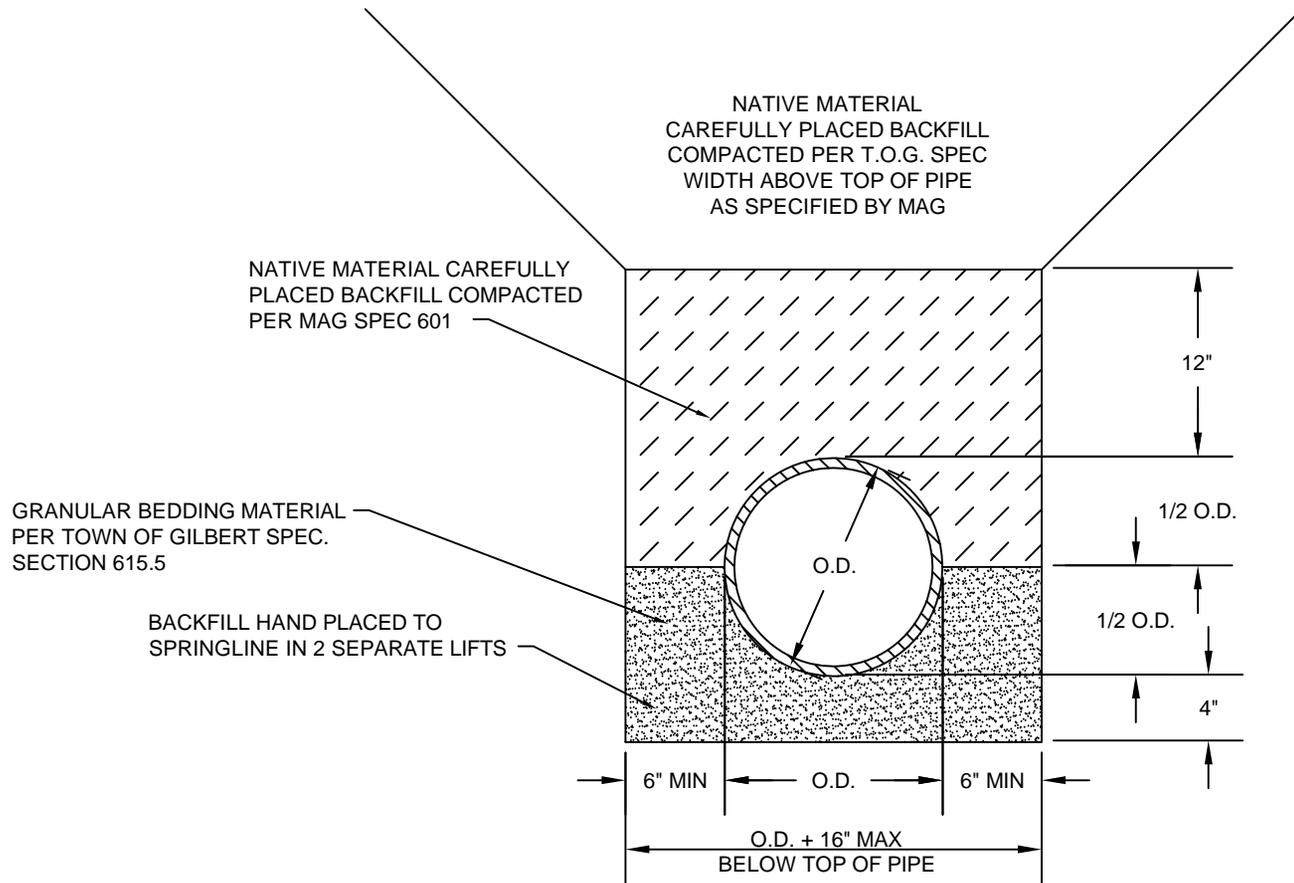
BEDDING DETAIL
PVC SEWER PIPE

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-401



NATIVE MATERIAL CAREFULLY PLACED BACKFILL COMPACTED PER T.O.G. SPEC WIDTH ABOVE TOP OF PIPE AS SPECIFIED BY MAG

NATIVE MATERIAL CAREFULLY PLACED BACKFILL COMPACTED PER MAG SPEC 601

GRANULAR BEDDING MATERIAL PER TOWN OF GILBERT SPEC. SECTION 615.5

BACKFILL HAND PLACED TO SPRINGLINE IN 2 SEPARATE LIFTS

VCP SEWER PIPE BEDDING DETAIL *
NTS

* VCP TO BE USED ONLY WITH WRITTEN APPROVAL FROM THE TOWN ENGINEER



STANDARD
DETAIL

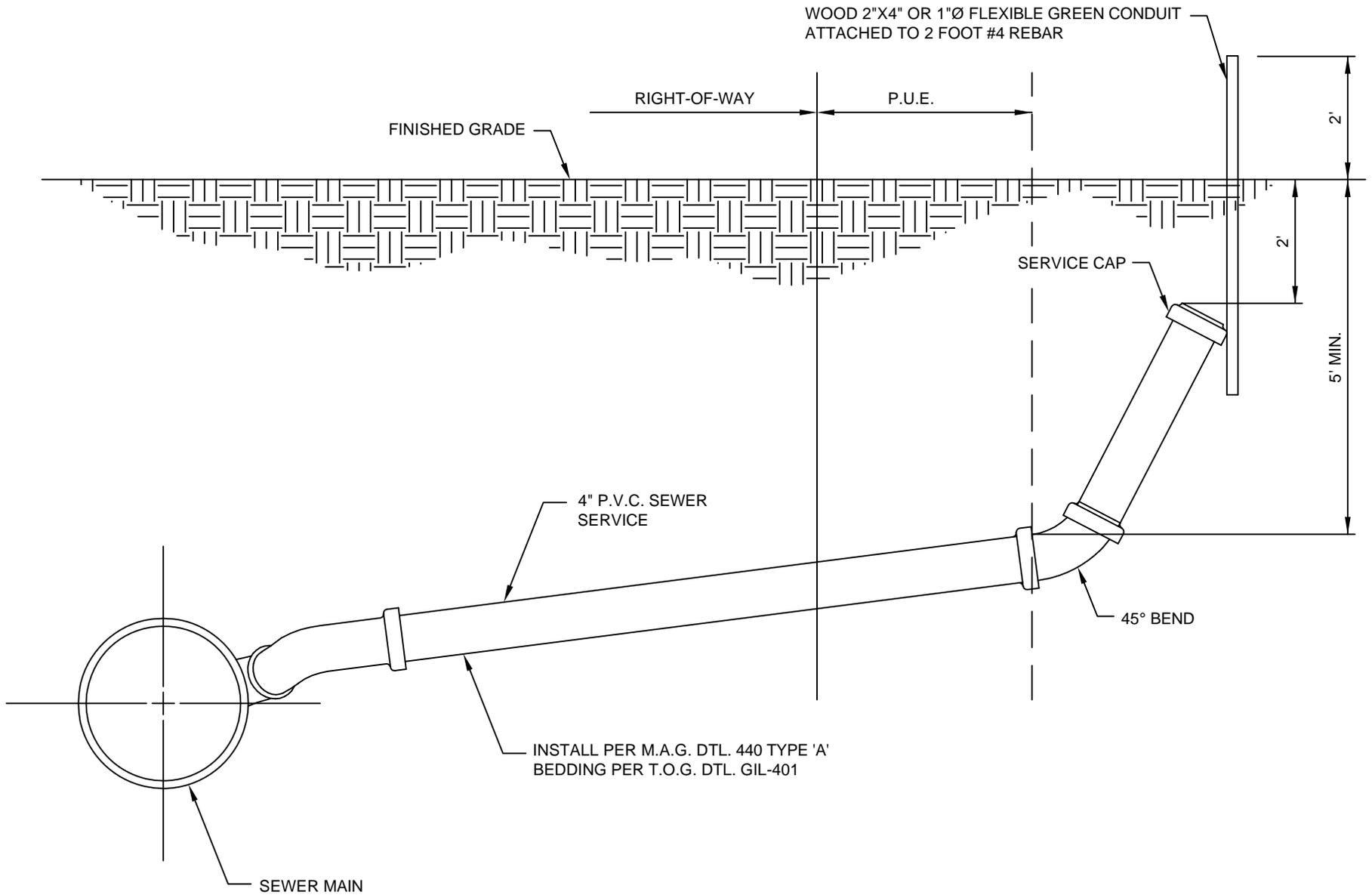
BEDDING DETAIL
VCP SEWER PIPE

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-402



STANDARD
DETAIL

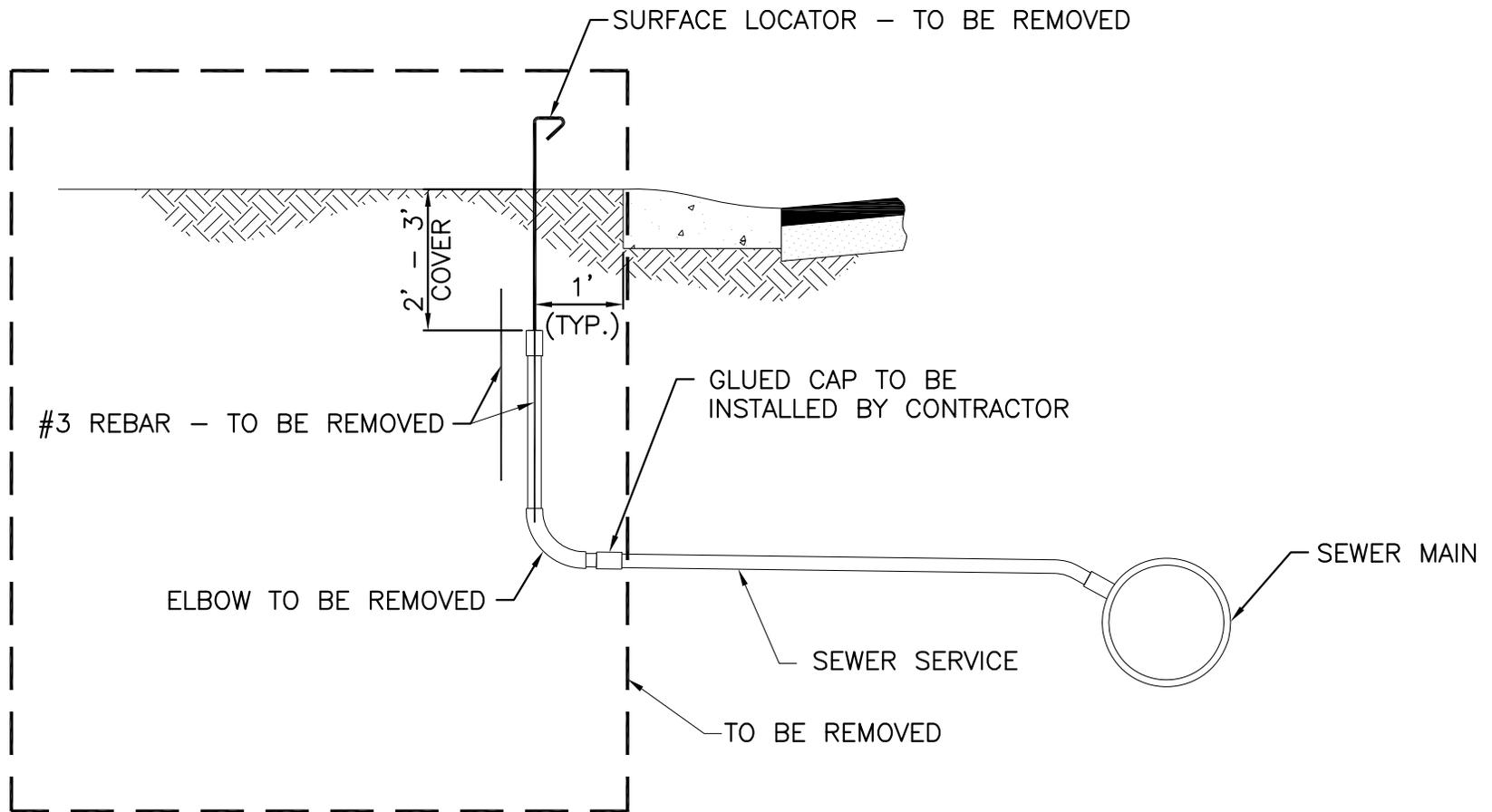
4" SEWER SERVICE INSTALLATION

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-410



STANDARD
DETAIL

4" SEWER SERVICE ABANDONMENT

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-419

- RECLAIMED WATER NOTES**
1. INSTALL IN ACCORDANCE WITH MAG SECTION 616
 2. USE PURPLE PIPE MARKED RECLAIMED WATER
CL 200 PSI 73° F , PVC 1120 ASTM D2241, SDR 21
 3. LOCATOR AND IDENTIFICATION TAPE AS SPECIFIED PER MAG SECTION 616 OR APPROVAL BY THE T.O.G.

LOCATOR TAPE PER MAG SECTION 616.4
24" BELOW THE SURFACE CENTERED OVER PIPE

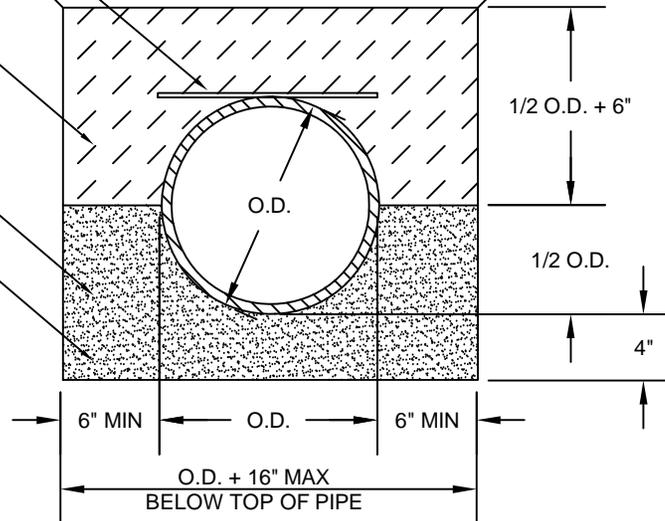
NATIVE MATERIAL
CAREFULLY PLACED BACKFILL
COMPACTED PER T.O.G. SPEC
WIDTH ABOVE TOP OF PIPE
AS SPECIFIED BY MAG

IDENTIFICATION TAPE PER MAG
SECTION 616.4.1

CAREFULLY PLACED BACKFILL COMPACTED
PER TOWN OF GILBERT SPEC. 601

BACKFILL HAND PLACED TO
SPRINGLINE IN 2 SEPERATE LIFTS

GRANULAR BEDDING MATERIAL TO
BE APPROVED BY THE TOWN OF
GILBERT INSPECTOR



PVC RECLAIMED WATER PIPE
BEDDING DETAIL



STANDARD
DETAIL

**BEDDING DETAIL
RECLAIMED WATER LINE**

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-701

TO BE DEVELOPED



STANDARD
DETAIL

RECLAIMED MANUAL SHUTOFF VALVE

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-710

TO BE DEVELOPED



STANDARD
DETAIL

RECLAIMED VALVE LIDS

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-715

TO BE DEVELOPED



STANDARD
DETAIL

RECLAIMED WATER METERS

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-720

TO BE DEVELOPED



STANDARD
DETAIL

RECLAIMED AIR/VACUUM RELIEF VALVES

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-730

TO BE DEVELOPED



STANDARD
DETAIL

RECLAIMED AUTOMATED TURNOUTS

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-740

TYPE OF LOADS

LOAD	DESCRIPTION	WEIGHT (LBS)	DIMENSIONS			EFF. PROJ. AREA (EPA)
			L	W	D	
	TYPE 'Q' HEAD WITH BACKPLATES *	81	67"	23"	22"	TO BE CALCULATED
	TYPE 'F' HEAD WITH BACKPLATES **	49	51"	23"	22"	TO BE CALCULATED
	PEDESTRIAN SIGNAL HEAD ***	25	20"	20"	10"	TO BE CALCULATED
	TRAFFIC SIGN	2 (APPROX.)	24"	24"	-	TO BE CALCULATED
	STREET LIGHT GE M250	30	6.5"	27.5"	13.5"	0.7 SQ. FT.
	VIDEO DETECTION ECONOLITE - AUTOSCOPE SOLO	6.6	8"	4.3"	21.6"	TO BE CALCULATED
	EMERGENCY VEHICLE DETECTION TOMAR - 2090	2 (APPROX.)	3"	4"	4"	TO BE CALCULATED
	CCTV CAMERA PELCO SPECTRA III	8.6	10.1"	9.7" (DIA.)	-	TO BE CALCULATED
	YAGI ANTENNA	2 (APPROX.)	4.6"	2.5"	3.62"	TO BE CALCULATED
	ILLUMINATED STREET NAME SIGN (N. 1234 GILBERT RD)	208 (SIGN) 29 (BRACKETS)	97"	30"	12"	20.2 SQ. FT.

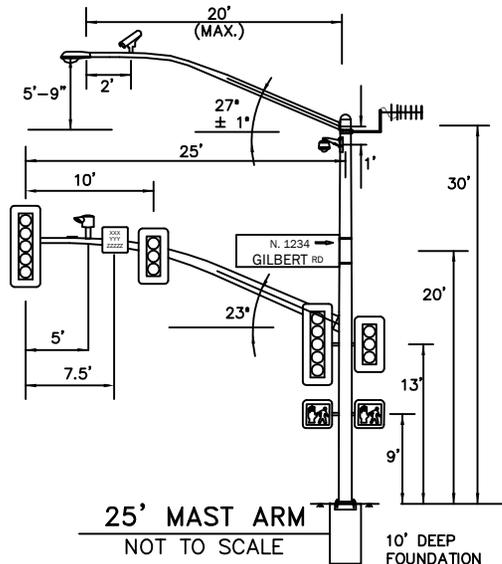
NOTES:

- * THE SIDE MOUNTED TYPE 'Q' HEAD MOUNTED ON THE SIDE OF THE POLE IS AT AN ANGLE OF 50° TO 70° FROM THE PLANE OF THE PAPER.
- ** THE TYPE 'F' HEADS CLOSEST TO THE POLE FOR THE 45 FT, 50 FT. AND 55 FT. MAST ARMS ON THE 'R' POLE ARE MOUNTED BETWEEN THE BOTTOM TWO LENSES OF THE SIGNAL HEAD I.E. AT A HEIGHT OF 19.25" FROM THE BOTTOM OF THE BACK-PLATE.
- *** THE SIDE MOUNTED PEDESTRIAN HEADS ARE MOUNTED WITH THE HEADS FACING APPROXIMATELY 90° WITH RESPECT TO EACH OTHER.

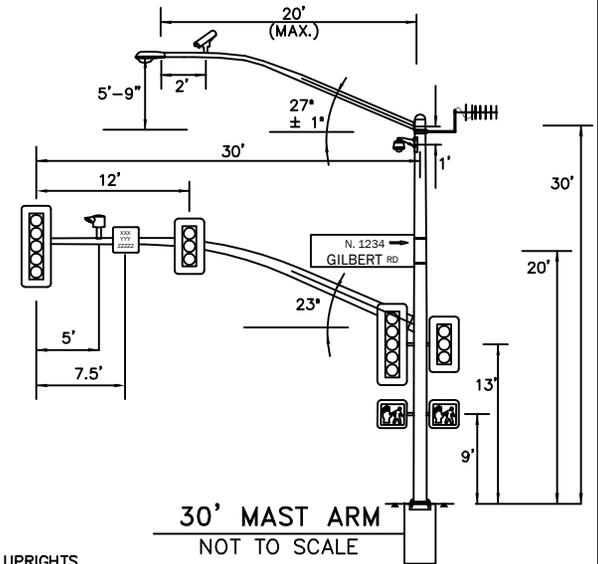
CLEARANCE TO SIGNAL HEADS ON MAST ARM

POLE	MAST ARM LENGTH	POSITION OF HEAD		
		1	2	3
Q	25'	17.15'	17.64'	-
	30'	17.15'	18.27'	-
	35'	17.15'	18.27'	-
	40'	17.15'	18.27'	18.06'

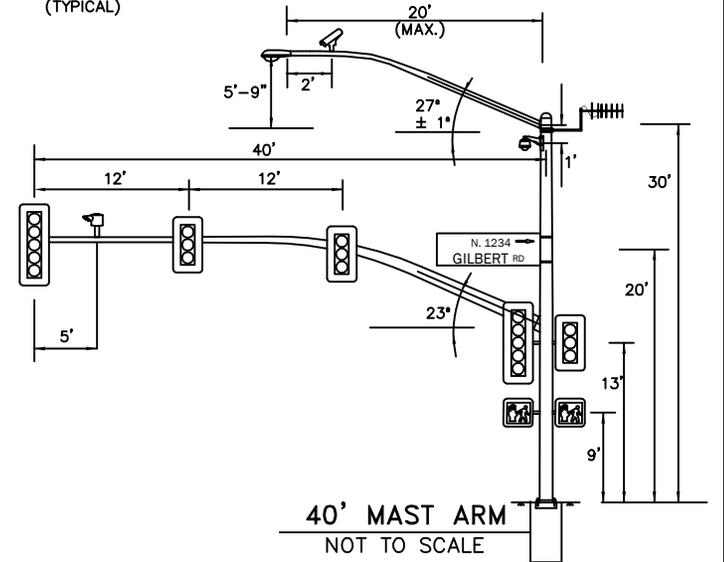
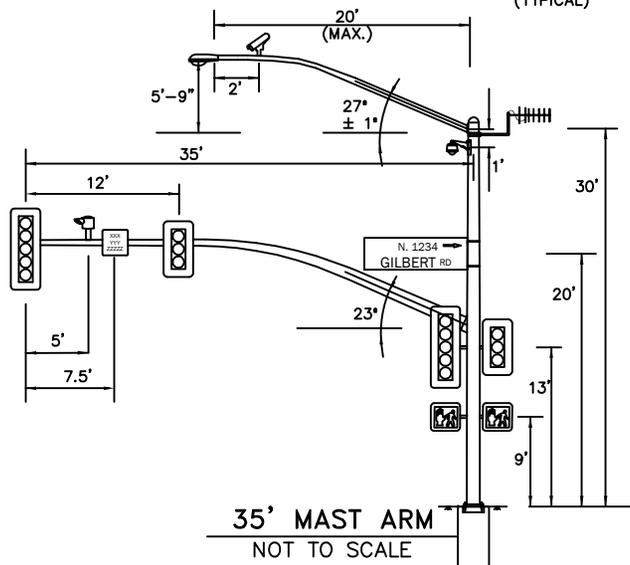
- NOTES:**
THE CLEARANCE TO THE SIGNAL HEADS ARE MEASURED FROM THE TOP OF THE POLE FOUNDATION TO THE BOTTOM OF THE SIGNAL ASSEMBLY I.E. THE BOTTOM OF THE SIGNAL BACKPLATES.



10' DEEP FOUNDATION FOR 'Q' POLES PER ADOT STD. DET. TS 4-10 (TYPICAL)



ALL POLE UPRIGHTS SHALL HAVE A HAND HOLE BEHIND THE SIGNAL MAST ARM (TYPICAL)



STANDARD
DETAIL

"Q" POLE LOADING DETAIL

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-801

TYPE OF LOADS

LOAD	DESCRIPTION	WEIGHT (LBS)	DIMENSIONS			EFF. PROJ. AREA (EPA)
			L	W	D	
	TYPE 'Q' HEAD WITH BACKPLATES *	81	67"	23"	22"	TO BE CALCULATED
	TYPE 'F' HEAD WITH BACKPLATES **	49	51"	23"	22"	TO BE CALCULATED
	PEDESTRIAN SIGNAL HEAD ***	25	20"	20"	10"	TO BE CALCULATED
	TRAFFIC SIGN	2 (APPROX.)	24"	24"	-	TO BE CALCULATED
	STREET LIGHT GE M250	30	6.5"	27.5"	13.5"	0.7 SQ. FT.
	VIDEO DETECTION ECONOLITE - AUTOSCOPE SOLO	6.6	8"	4.3"	21.6"	TO BE CALCULATED
	EMERGENCY VEHICLE DETECTION TOMAR - 2090	2 (APPROX.)	3"	4"	4"	TO BE CALCULATED
	CCTV CAMERA PELCO SPECTRA III	8.6	10.1"	9.7" (DIA.)	-	TO BE CALCULATED
	YAGI ANTENNA	2 (APPROX.)	4.6"	2.5"	3.62"	TO BE CALCULATED
	ILLUMINATED STREET NAME SIGN (BRACKETS)	208 (SIGN) 29 (BRACKETS)	97"	30"	12"	20.2 SQ. FT.

CLEARANCE TO SIGNAL HEADS ON MAST ARM

POLE	MAST ARM LENGTH	POSITION OF HEAD		
		1	2	3
R	45'	17.15'	17.64'	18.02'
	50'	17.15'	18.27'	18.27'
	55'	17.15'	18.27'	18.27'

NOTES:

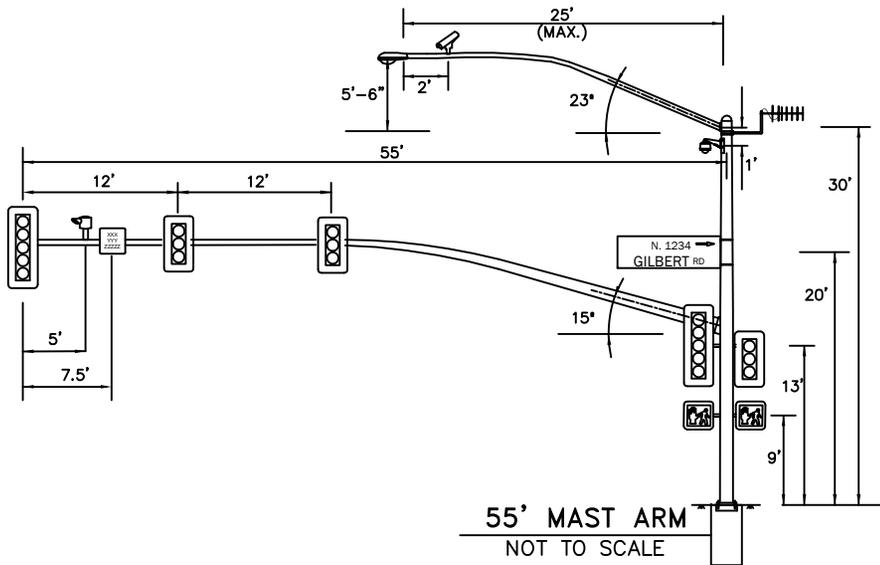
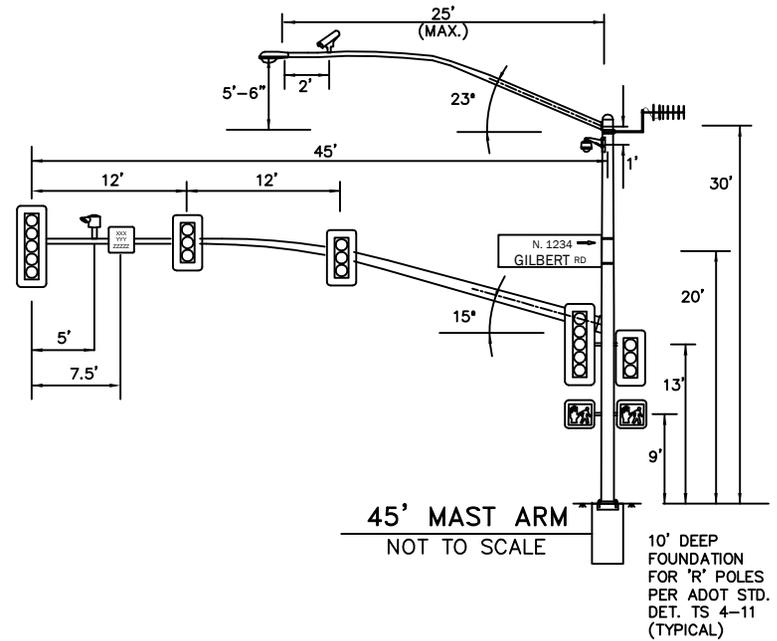
THE CLEARANCE TO THE SIGNAL HEADS ARE MEASURED FROM THE TOP OF THE POLE FOUNDATION TO THE BOTTOM OF THE SIGNAL ASSEMBLY i.e. THE BOTTOM OF THE SIGNAL BACKPLATES.

NOTES:

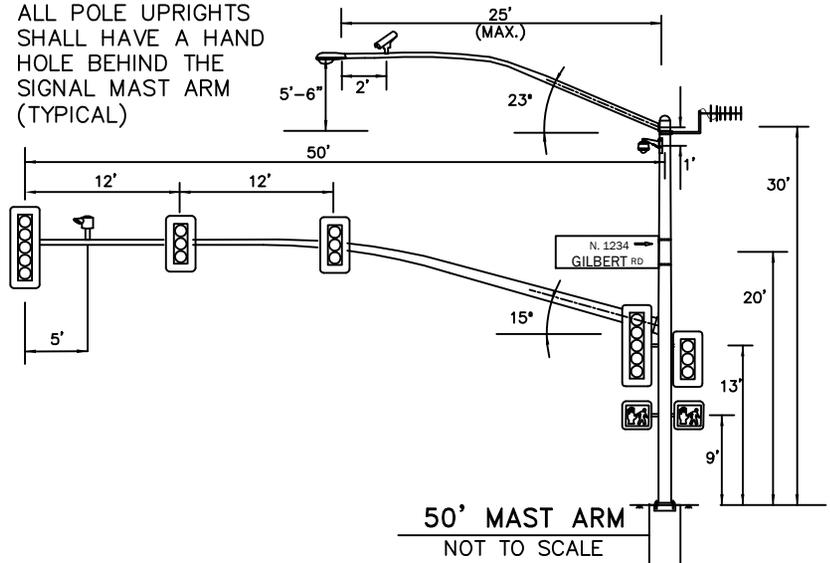
* THE SIDE MOUNTED TYPE 'Q' HEAD MOUNTED ON THE SIDE OF THE POLE IS AT AN ANGLE OF 50° TO 70° FROM THE PLANE OF THE PAPER.

** THE TYPE 'F' HEADS CLOSEST TO THE POLE FOR THE 45 FT., 50 FT. AND 55 FT. MAST ARMS ON THE 'R' POLE ARE MOUNTED BETWEEN THE BOTTOM TWO LENSES OF THE SIGNAL HEAD i.e. AT A HEIGHT OF 19.25" FROM THE BOTTOM OF THE BACK-PLATE.

*** THE SIDE MOUNTED PEDESTRIAN HEADS ARE MOUNTED WITH THE HEADS FACING APPROXIMATELY 90° WITH RESPECT TO EACH OTHER.



ALL POLE UPRIGHTS SHALL HAVE A HAND HOLE BEHIND THE SIGNAL MAST ARM (TYPICAL)



TYPE OF LOADS

LOAD	DESCRIPTION	WEIGHT (LBS)	DIMENSIONS			EFF. PROJ. AREA (EPA)
			L	W	D	
	TYPE 'Q' HEAD WITH BACKPLATES	81	67"	23"	22"	TO BE CALCULATED
	TYPE 'F' HEAD WITH BACKPLATES	49	51"	23"	22"	TO BE CALCULATED
	PEDESTRIAN SIGNAL HEAD **	25	20"	20"	10"	TO BE CALCULATED
	TRAFFIC SIGN	2 (APPROX.)	24"	24"	-	TO BE CALCULATED
	STREET LIGHT GE M250	30	6.5"	27.5"	13.5"	0.7 SQ. FT.
	VIDEO DETECTION ITERIS RZ4C	5.7	5"	5"	17"	TO BE CALCULATED
	EMERGENCY VEHICLE DETECTION TOMAR - 2090	2 (APPROX.)	3"	4"	4"	TO BE CALCULATED
	CCTV CAMERA PELCO SPECTRA IV	8.6	10.1"	9.7"	(DIA.)	TO BE CALCULATED
	YAGI ANTENNA	2 (APPROX.)	4.6"	2.5"	3.62"	TO BE CALCULATED
	ILLUMINATED STREET NAME SIGN	208 (SIGN) 29 (BRACKETS)	97"	30"	12"	20.2 SQ. FT.

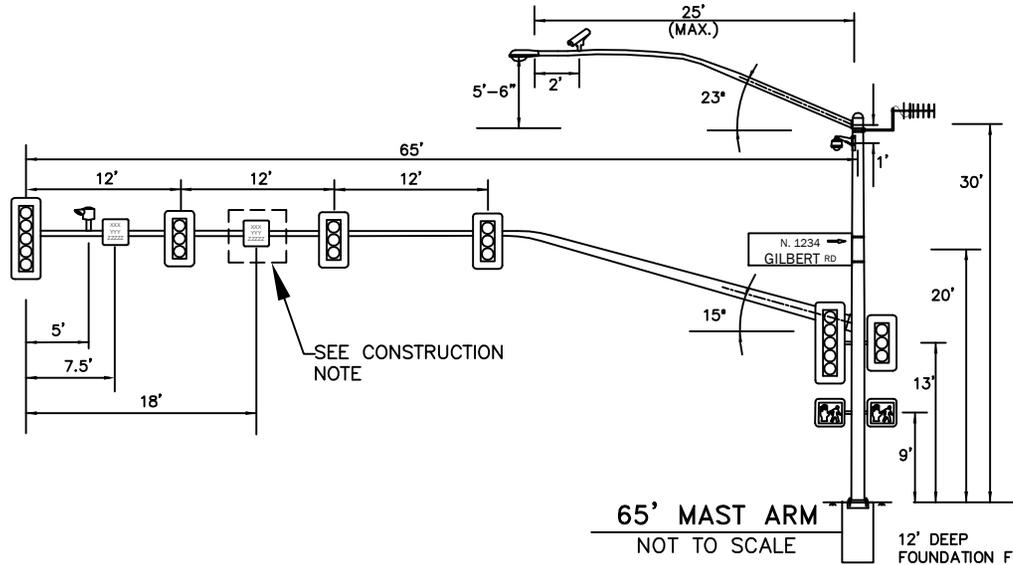
NOTES:

- * THE SIDE MOUNTED TYPE 'Q' HEAD MOUNTED ON THE SIDE OF THE POLE IS AT AN ANGLE OF 50° TO 70° FROM THE PLANE OF THE PAPER.
- ** THE SIDE MOUNTED PEDESTRIAN HEADS ARE MOUNTED WITH THE HEADS FACING APPROXIMATELY 90° WITH RESPECT TO EACH OTHER.

CONSTRUCTION NOTE

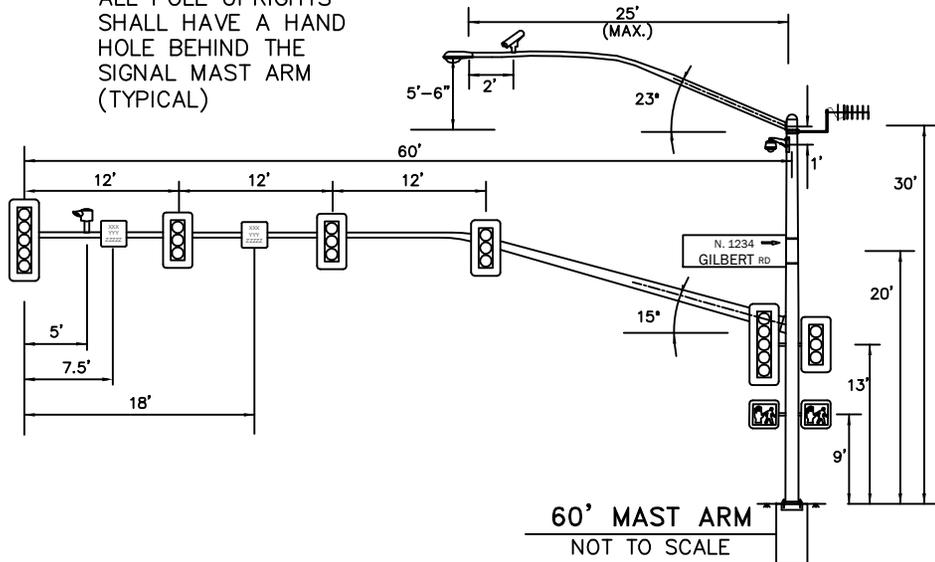
THE SIGN AT DISTANCE 18 FEET FROM MAST ARM FOR 65 FOOT MAST ARM SHALL BE INSTALLED ONLY IF TYPE 'R' OR TYPE 'Q' HEAD IS INSTALLED AT THE TIP OF THE MAST ARM.

ALL POLE UPRIGHTS SHALL HAVE A HAND HOLE BEHIND THE SIGNAL MAST ARM (TYPICAL)



65' MAST ARM
NOT TO SCALE

12' DEEP FOUNDATION FOR 'W' POLES PER ADOT STD. DET. TS 4-19 (TYPICAL)



60' MAST ARM
NOT TO SCALE

CLEARANCE TO SIGNAL HEADS ON MAST ARM

POLE	MAST ARM LENGTH	POSITION OF HEAD			
		1	2	3	3
W	60'	17.15'	18.27'	18.27'	17.70'
	65'	17.15'	18.27'	18.27'	18.27'

NOTES:

THE CLEARANCE TO THE SIGNAL HEADS ARE MEASURED FROM THE TOP OF THE POLE FOUNDATION TO THE BOTTOM OF THE SIGNAL ASSEMBLY i.e. THE BOTTOM OF THE SIGNAL BACKPLATES.



STANDARD
DETAIL

"W" POLE LOADING DETAIL

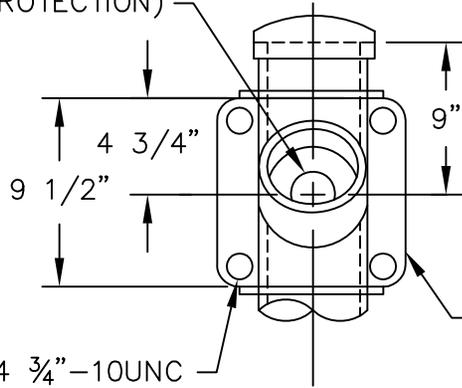
APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-803

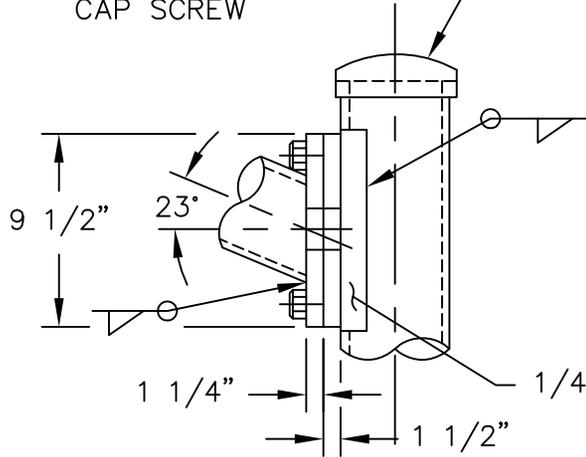
3" DIA. HOLE
(DEBURRED
FOR WIRE
PROTECTION)



SEE LUMINAIRE
CONNECTION
PLATE DETAIL

4 3/4"-10UNC
x 2 1/2"LG.
HEX HEAD
CAP SCREW

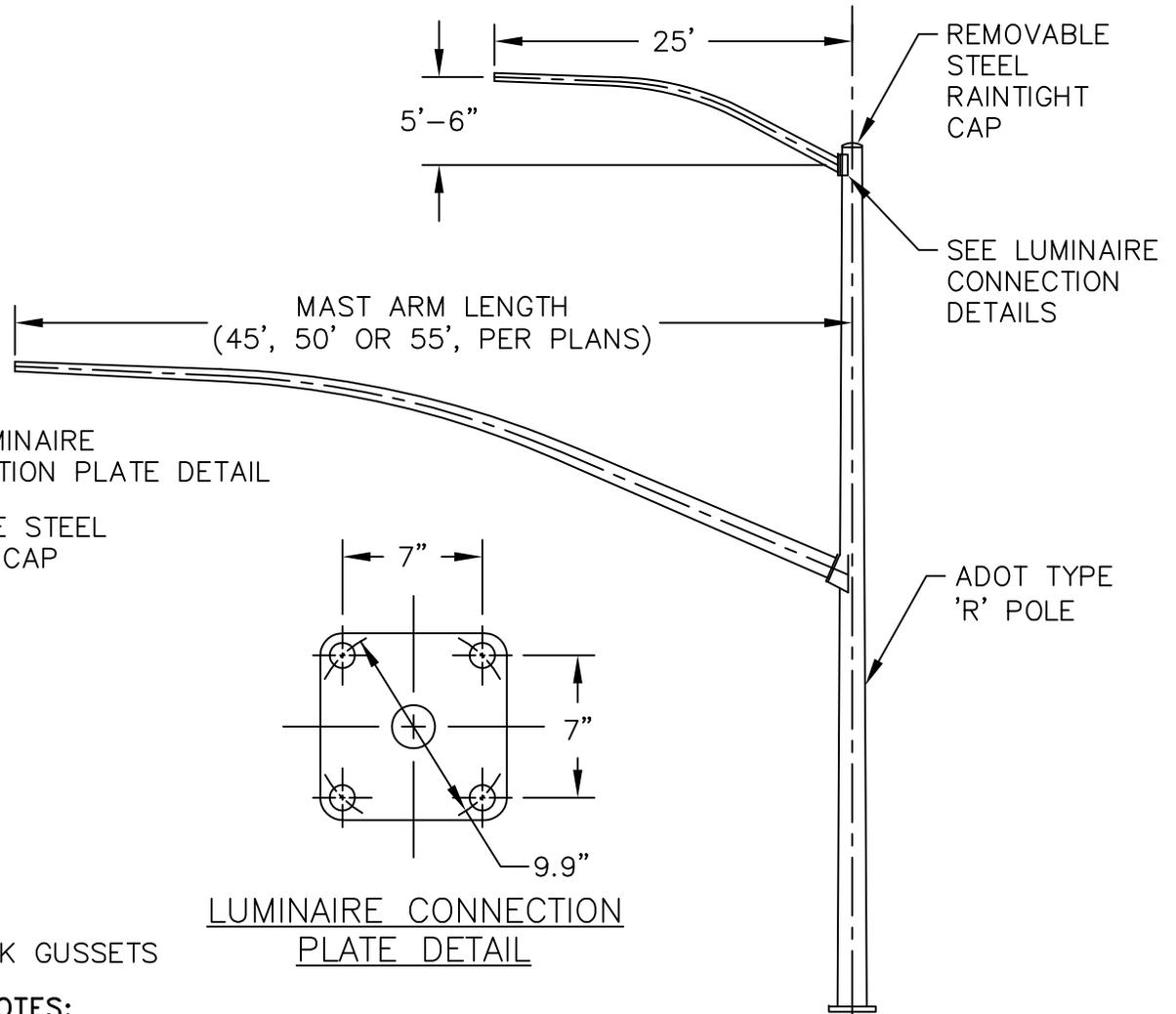
REMOVABLE STEEL
RAINTIGHT CAP



LUMINAIRE
CONNECTION DETAILS

1/4" THICK GUSSETS

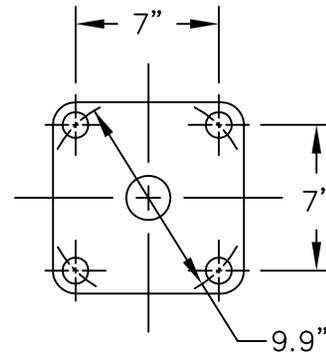
MAST ARM LENGTH
(45', 50' OR 55', PER PLANS)



REMOVABLE
STEEL
RAINTIGHT
CAP

SEE LUMINAIRE
CONNECTION
DETAILS

ADOT TYPE
'R' POLE



LUMINAIRE CONNECTION
PLATE DETAIL

NOTES:

1. REQUIREMENTS FOR MAST ARMS, POLES, FOUNDATIONS AND ANCHOR BOLTS SHALL BE AS DEFINED BY THE ADOT TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS.
2. POLE/MAST ARM SUPPLIER SHALL PROVIDE SEALED SHOP DRAWINGS TO THE TOWN OF GILBERT FOR POLES AND MAST ARMS INSTALLED WITHIN THE TOWN.
3. THE FOUR-BOLT PATTERN OF THE LUMINAIRE CONNECTION PLATE SHALL BE SPACED SEVEN INCHES ON CENTER VERTICALLY AND HORIZONTALLY.



STANDARD
DETAIL

25' LUMINAIRE MAST ARM

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-810

NOTES:

1. PHASE 2 IS ALWAYS NORTHBOUND REGARDLESS OF STREET CLASSIFICATION
2. VIDEO DETECTION SHALL BE AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE MATERIALS AND CONSTRUCTION SHALL COMPLY WITH TOG STANDARD SPECIFICATIONS FOR VIDEO DETECTION. THE CONTRACTOR SHALL VERIFY MOUNTING LOCATIONS WITH TOWN OF GILBERT PRIOR TO INSTALLATION.
3. THE VIDEO DETECTION SYSTEM SHALL INCLUDE THE FOLLOWING PARTS:

REQUIRED PARTS

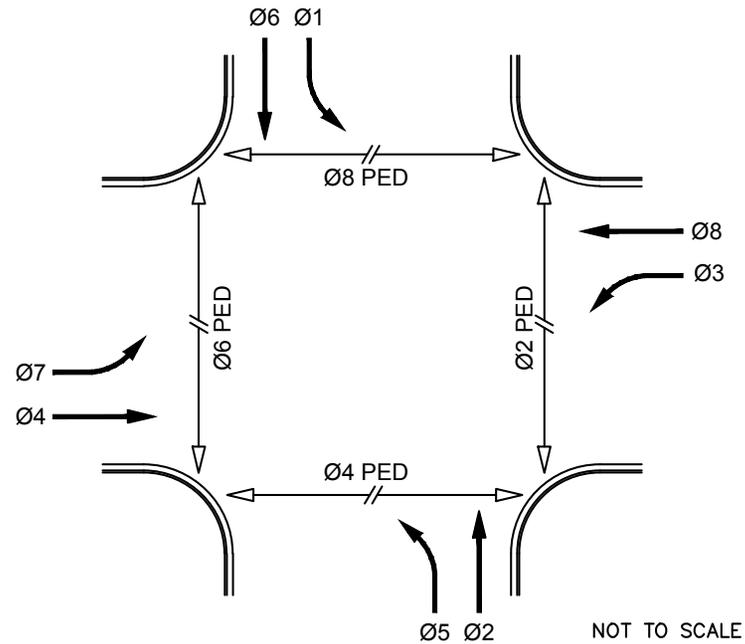
- VIDEO INPUT PROCESSOR CARD
- COLOR CAMERA
- MOUNTING BRACKET
- COMMUNICATIONS MODULE
- SURGE PANEL

VIDEO CABLE

SIAMESE CABLE

- COAXIAL CABLE (CAMERA TO SURGE PANEL)
- COAXIAL CABLE (SURGE PANEL TO VIDEO CARD)
- COAXIAL CABLE (COMMUNICATIONS MODULE TO COLOR MONITOR)
- CAT-5E (VIDEO CARD TO COMMUNICATIONS MODULE)

4. ALL CAMERAS SHALL BE MOUNTED WITH 6' EXTENSION BRACKETS ON THE SIGNAL MAST ARM UNLESS PRIOR PERMISSION IS GRANTED BY THE TOWN OF GILBERT



NOT TO SCALE

TYPICAL SIGNAL PHASING

VIDEO INPUT PROCESSOR CARD	DET 3	DET 1	DET 3	DET 1
	DET 4	DET 2	DET 4	DET 2
DETECTOR	L-3	L-1	L-7	L-5
RACK ASSIGNMENT	L-4	L-2	L-8	L-6
DETECTOR	Ø 1	Ø 2	Ø 3	Ø 4
RACK ASSIGNMENT	Ø 5	Ø 6	Ø 7	Ø 8

DETECTOR ASSIGNMENT



STANDARD
DETAIL

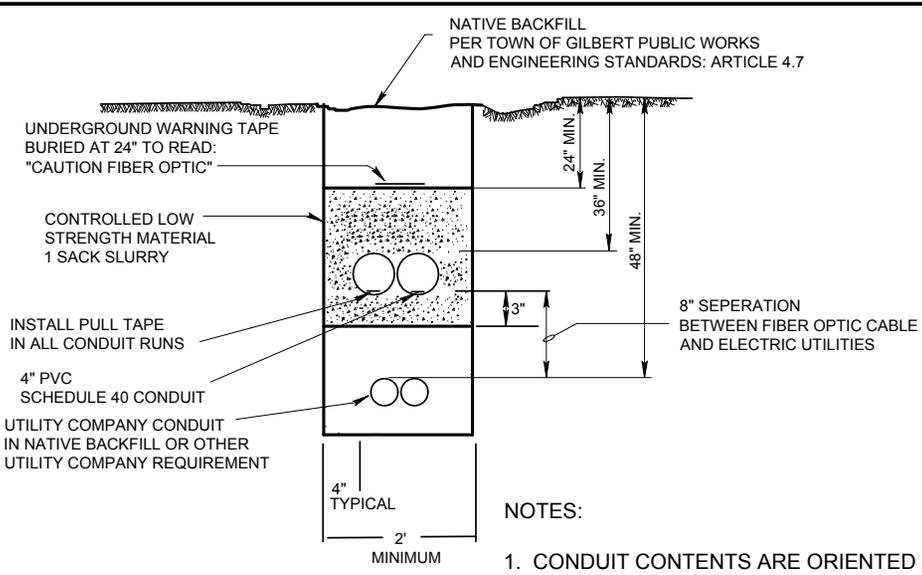
STANDARD VIDEO DETECTION DETAIL

APPROVED

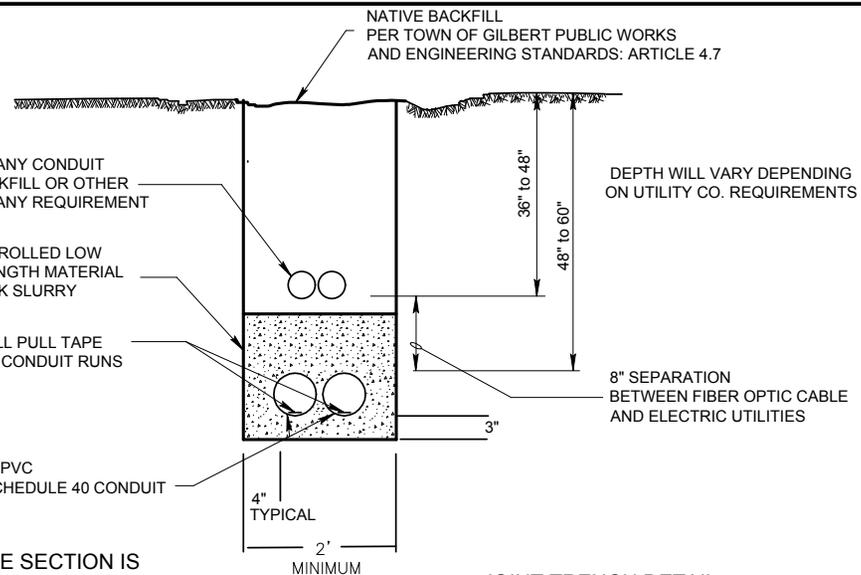
TOWN ENGINEER

DATE

DETAIL No.
GIL-823



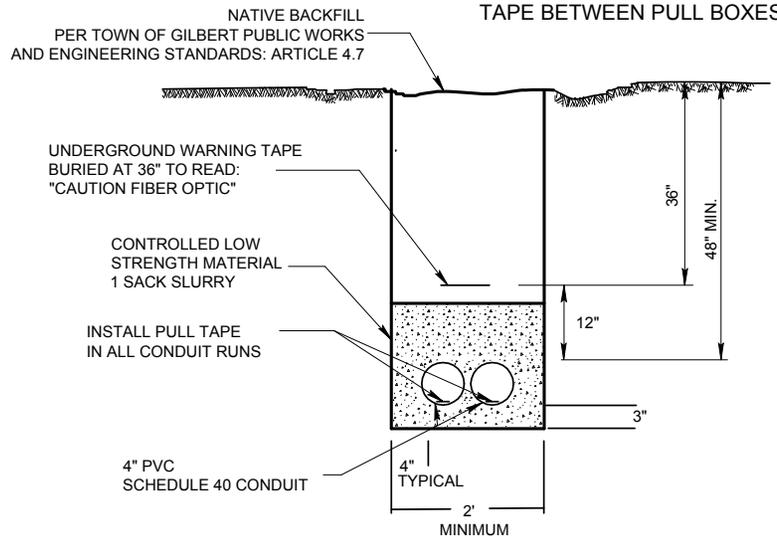
**JOINT TRENCH DETAIL
UTILITY BELOW INTERCONNECT**



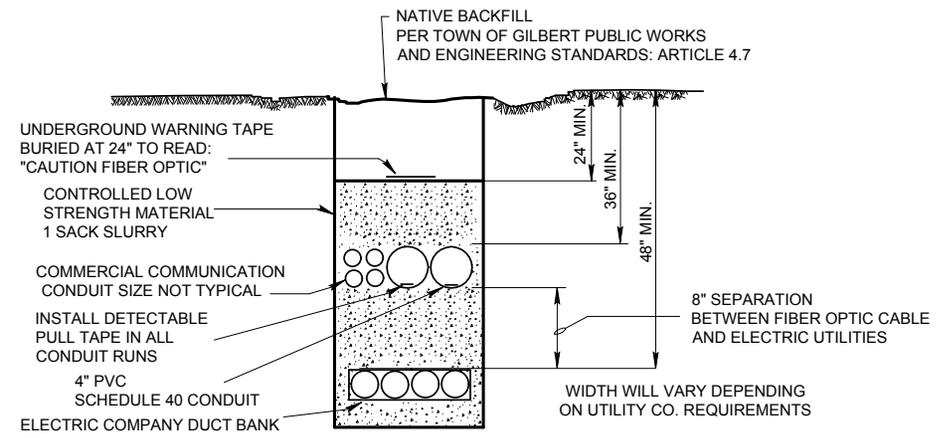
**JOINT TRENCH DETAIL
UTILITY ABOVE INTERCONNECT**

NOTES:

1. CONDUIT CONTENTS ARE ORIENTED ASSUMING THE SECTION IS FACING IN THE DIRECTION OF TRAVEL FOR THE ARTERIAL STREET.
2. ALL SPOIL MATERIALS SHALL BE REMOVED OFFSITE BY THE CONTRACTOR.
3. AREA SHALL BE RETURNED TO EXISTING GRADE.
4. CONDUIT COUPLINGS SHALL BE STAGGERED.
5. PULL TAPE AND TRACER WIRE SHALL BE INSTALLED IN ALL TOG CONDUIT. PULL TAPE SHALL HAVE A 2500 LBS. MINIMUM PULL CAPACITY. THE PULL TAPE SHALL BE SPLICED IN ALL PULL BOXES. THERE SHALL BE NO SPLICING OR TYING OF THE PULL TAPE BETWEEN PULL BOXES.



INTERCONNECT TRENCH DETAIL



**JOINT TRENCH DETAIL
UTILITY DUCT BANK**

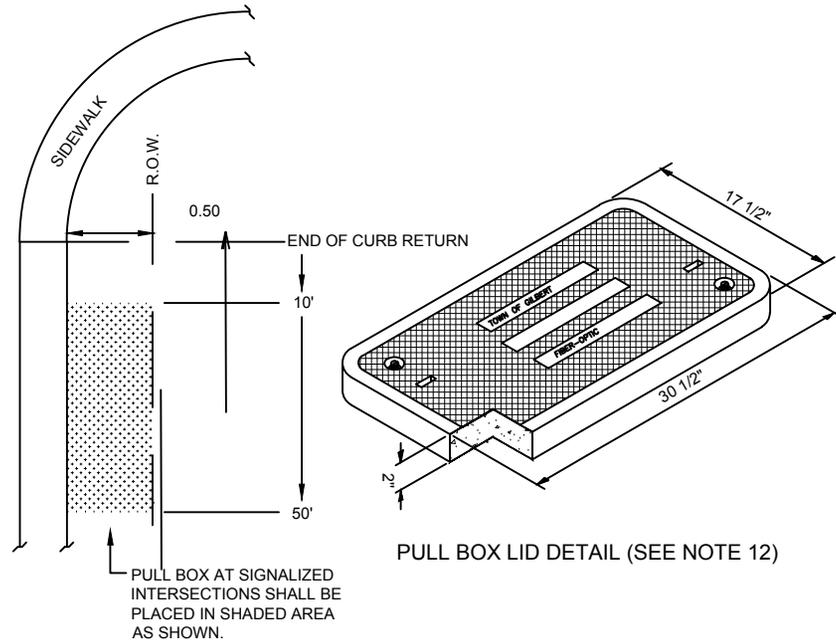


**STANDARD
DETAIL**

**INTERCONNECT TRENCHING AND JOINT
UTILITY TRENCHING DETAIL**

APPROVED _____
TOWN ENGINEER _____ DATE _____

DETAIL No.
GIL-831

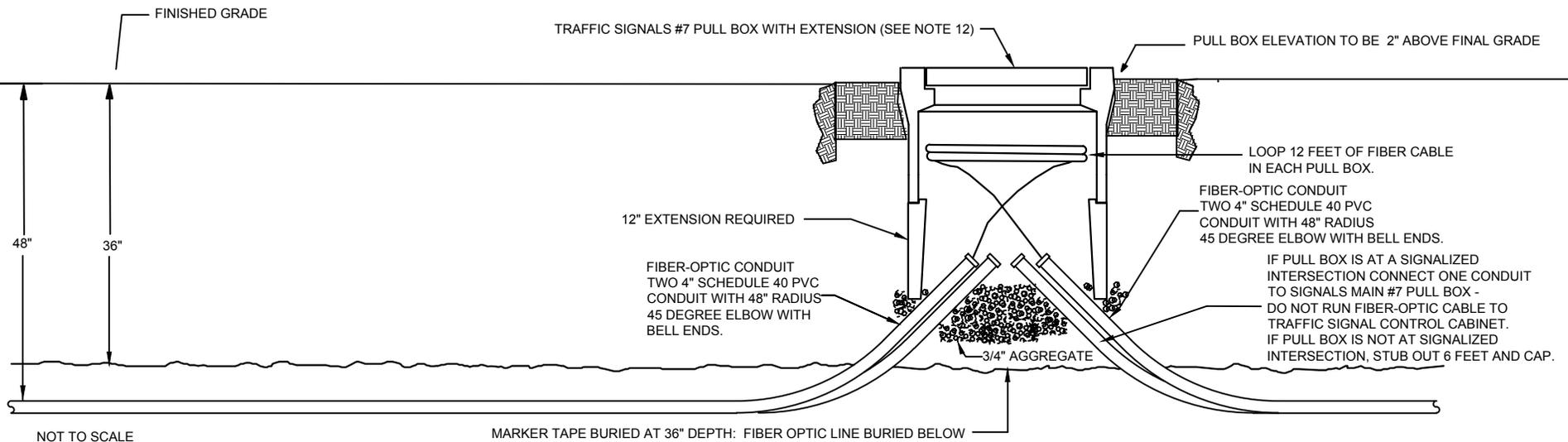


PULL BOX LID DETAIL (SEE NOTE 12)

TYPICAL PULL BOX LOCATION AT INTERSECTION

GENERAL NOTES:

1. FIBER-OPTIC CONDUIT RUNS SHALL BE INSTALLED ON THE SAME SIDE OF THE STREET AS TRAFFIC SIGNAL CONTROL CABINET(S).
2. WHEN NEW STREETLIGHT CONDUIT IS BEING INSTALLED, THE CONDUIT FOR THE FIBER-OPTIC CABLE SHALL SHARE A COMMON TRENCH WITH THE STREETLIGHT CONDUIT.
3. REFER TO DETAIL GIL-842 FOR PULL BOX INSTALLATION.
4. PULL BOX COVER LETTERING SHALL BE 1" LETTERS CAST IN STANDARD MARKINGS "TOWN OF GILBERT FIBER-OPTIC"
5. PULL BOXES SHALL BE SPACED APPROXIMATELY 1000 FEET APART
6. CABLE SHALL BE SUPPLIED ON 6000 FEET REELS.
7. CABLE SHALL BE INSTALLED AS ONE CONTINUOUS PIECE WITH NO SPLICES INSIDE # 7 PULL BOXES.
8. ONE (1) GALLON OF WIRE PULLING "SOAP" SHALL BE USED PER 660 FEET WHEN PULLING CABLE.
9. CONDUITS FOR FIBER SYSTEM SHALL BE BLOWN OUT WITH COMPRESSED AIR AND HAVE AN 8" LONG METAL DISK MANDREL PULLED THROUGH BEFORE FIBER CABLE IS INSTALLED.
10. CONTRACTOR SHALL PERFORM AN "OTDR" (OPTICAL TIME-DOMAIN REFLECTOMETER) TEST AND A POWER METER TEST ON ALL FIBERS WITH THE TRAFFIC ENGINEERING TECHNICIAN PRESENT BEFORE FINAL ACCEPTANCE. OPERATOR SHALL BE QUALIFIED TO PERFORM TEST. WRITTEN TEST RESULTS SHALL BE PROVIDED TO TECHNICIAN AS TO RESULTS OF EACH FIBER TESTED.
11. PULL BOX LID SHALL BE #7 CHRISTY "FIBRELYTE" (PART NUMBER FL36T) OR APPROVED EQUAL.
12. ALL CONDUIT HAVE DETECTABLE PULL TAPE INSTALLED IN A CONTINUOUS RUN. TAPE WIRE SHALL BE SPLICED TOGETHER



NOT TO SCALE

MARKER TAPE BURIED AT 36" DEPTH: FIBER OPTIC LINE BURIED BELOW



STANDARD
DETAIL

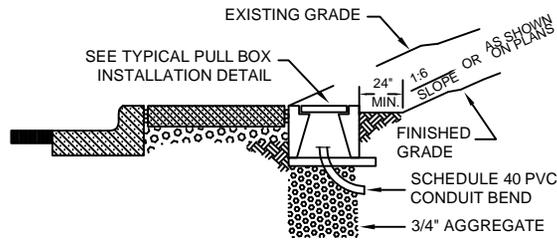
NO. 7 PULL BOX TYPICAL INSTALLATION FOR
FIBER INTERCONNECT

APPROVED

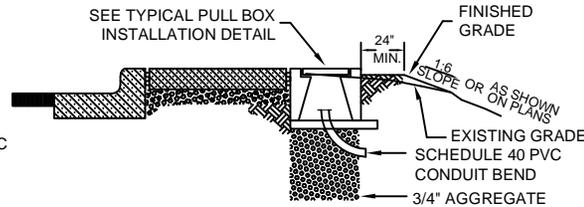
TOWN ENGINEER

DATE

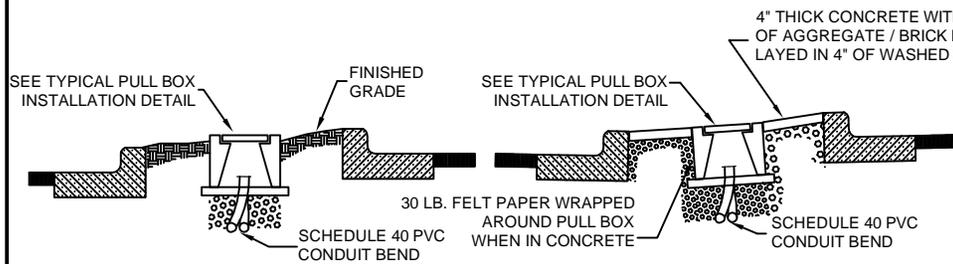
DETAIL No.
GIL-841



UPWARD SLOPE DETAIL

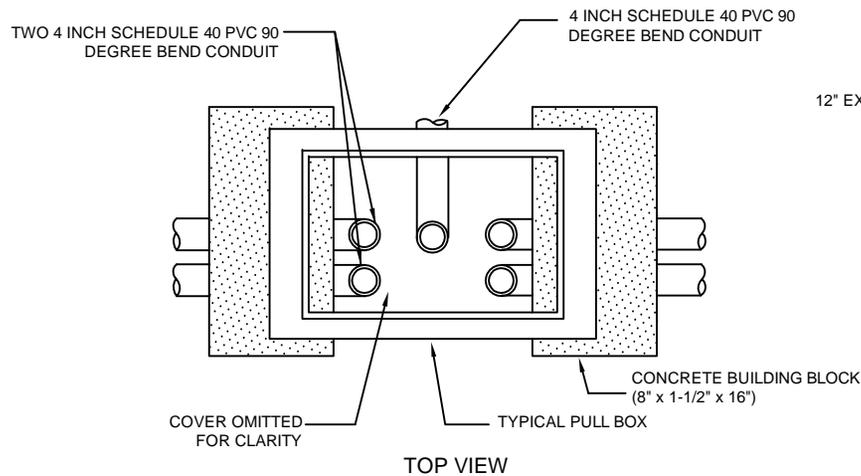


DOWNWARD SLOPE DETAIL

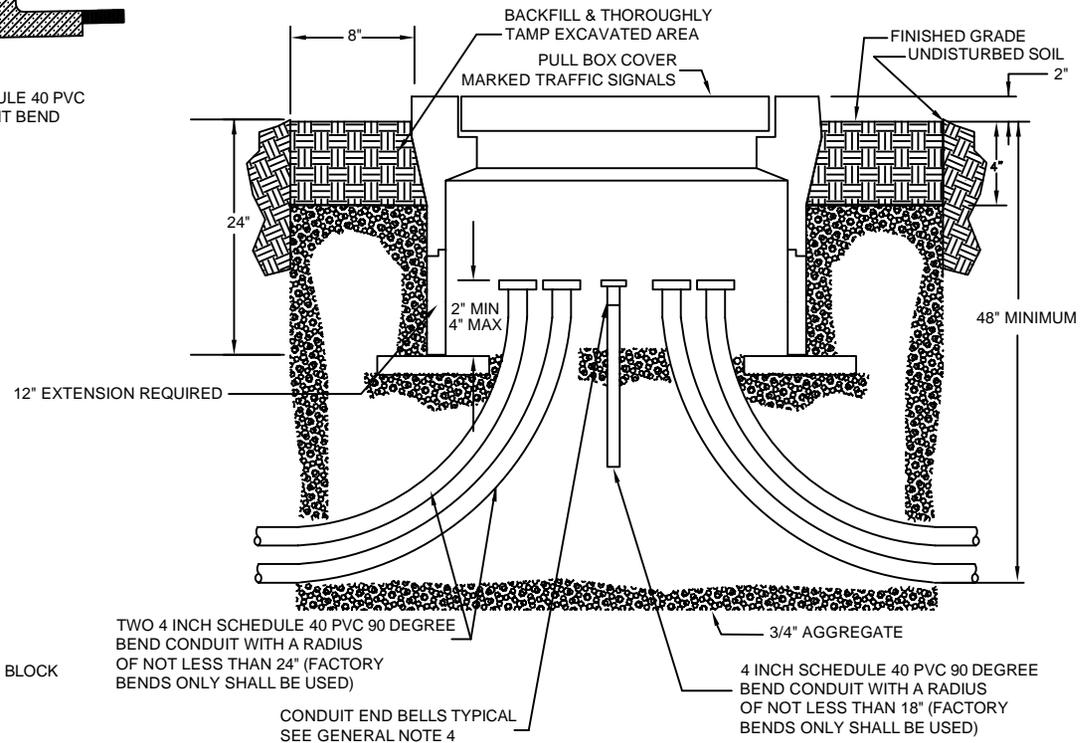


MEDIAN DETAIL

CONCRETE MEDIAN DETAIL



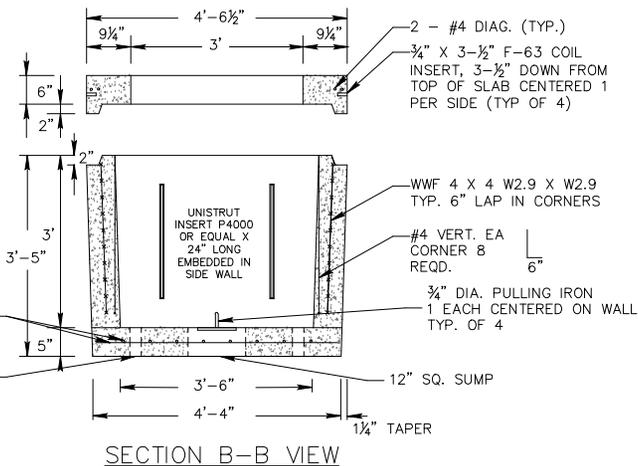
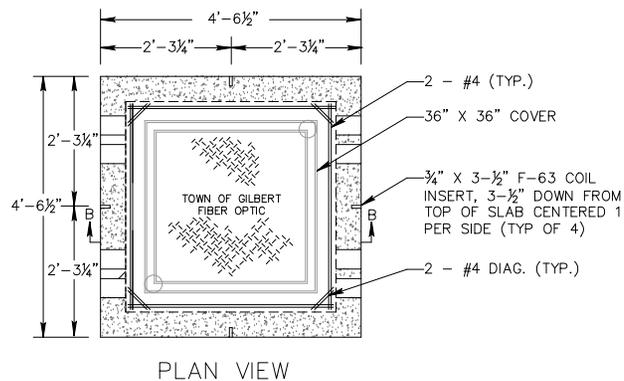
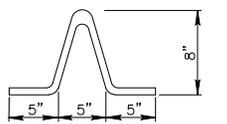
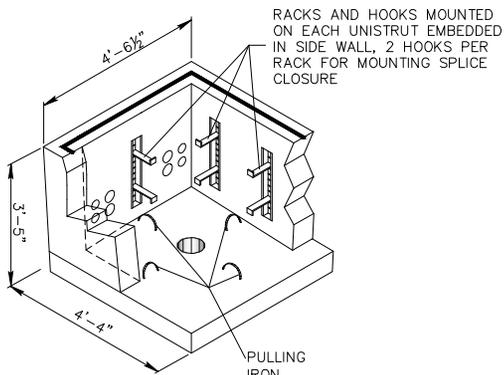
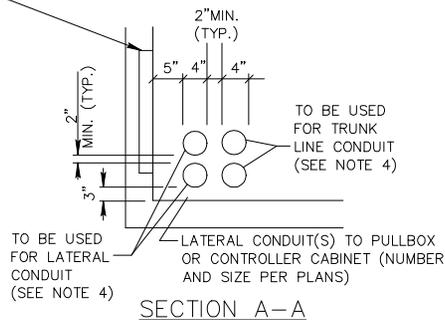
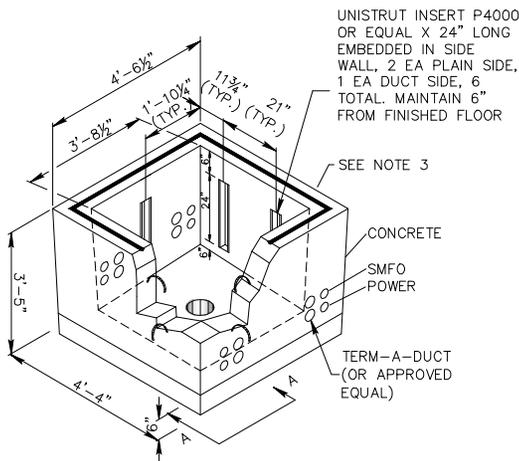
TOP VIEW



TYPICAL PULL BOX INSTALLATION DETAIL

GENERAL NOTES:

1. ALL FINISHED TRAFFIC SIGNAL EQUIPMENT (POLE FOUNDATIONS, PULL BOXES, AND CONTROLLER CABINET PADS) SHALL BE AT BACK OF SIDEWALK GRADE, UNLESS OTHERWISE NOTED ON PLANS.
2. WHEN TRAFFIC SIGNAL EQUIPMENT (POLES, PULL BOXES, AND CONTROLLER CABINETS) ARE INSTALLED IN AN UPWARD SLOPE SECTION, THE PROJECT ENGINEER SHALL DESIGN A RETAINING WALL OR CUT BACK EXISTING GRADE TO OBTAIN A LEVEL AREA FOR AT LEAST 24 INCHES FROM THE TRAFFIC SIGNAL EQUIPMENT. THE SLOPE OF THE FINISHED GRADE SHALL NOT EXCEED A 1:6 SLOPE AND SHALL MATCH AND CONFORM TO THE EXISTING TERRAIN.
3. WHEN TRAFFIC SIGNAL EQUIPMENT (POLES, PULL BOXES, AND CABINETS) ARE INSTALLED IN A DOWNWARD SLOPE SECTION, NEEDED DIRT SHALL BE HAULED IN TO OBTAIN A LEVEL AREA FOR AT LEAST 24 INCHES FROM THE TRAFFIC SIGNAL EQUIPMENT. THE SLOPE OF THE FINISHED GRADE SHALL NOT EXCEED A 1:6 SLOPE AND SHALL MATCH AND CONFORM TO THE EXISTING TERRAIN.
4. CONDUIT END BELLS SHALL BE INSTALLED BEFORE PULLING WIRE.
5. BACKFILL WITH EXCAVATED MATERIALS AND THOROUGHLY TAMP PER M.A.G. STANDARD 601.
6. FINISH GRADE SHALL BE 2" DOWN FROM TOP OF BOX. ANY PAVEMENT OR SIDEWALK SHALL BE FLUSH WITH TOP OF BOX.



(CROSS AREA .180)
WWF 4 X 4, W6 X W6

2 EA. 2-1/2" GROUND ROD KNOCKOUTS

FIBER OPTIC NO. 9 VAULT

(3'-6" X 3'-6" X 3' HANDHOLE
W/ SQ. HINGED COVER)

NOTES:

- PULLING IRONS SHALL BE CAST INTO EACH CORNER OF THE BOTTOM OF PULL BOX.
- ALL NEW PULL BOXES SHALL BE FURNISHED WITH RACKS AND HOOKS INSTALLED.
- PULL BOX SHALL BE INSTALLED WITH A LOCKING LIP WITH SEAL BETWEEN WALL & COVER ASSEMBLY.
- TERM-A-DUCT (OR APPROVED EQUAL) SHALL ACCEPT A 4" DIA. PVC CONDUIT, UNLESS OTHERWISE SPECIFIED.
- PULL BOX AND LID SHALL BE RATED FOR HS20-44 LIVE LOADING.
- ALL POWER AND COMMUNICATION CABLES SHALL BE TAGGED WITH CABLE IDENTIFICATION.
- *TOWN OF GILBERT FIBER OPTIC* SHALL BE THE TITLE EMBOSSED ON THE LID. ROUND AND SQUARE LIDS ARE BOTH ACCEPTABLE.
- LOCKING LID W/SEAL BETWEEN WALL AND COVER ASSEMBLY.
- SQUARE LID SHALL BE H20 GALVANIZED HINGED 36" X 36" CLEAR 180 DEGREE OPENING. DOOR SHALL BE TORSION SPRING ASSISTED WITH RECESSED LIFTING HANDLE WITH STAINLESS STEEL PENTA BOLT AND CAM LOCK.

DESIGN CRITERIA:

LIVE LOAD	HS 20-44 TRUCK LOADING
EQUIVALENT LATERAL EARTH PRESSURE	30 P.S.F. (DRY) 36 P.S.F. (SATURATED)
DEPTH: (GROUND SURFACE TO TOP OF MANHOLE)	AT GRADE
MINIMUM SOIL BEARING CAPACITY	2,000 P.S.F.

DESIGN SPECS:

CONCRETE COMPRESSIVE STRENGTH SHALL BE BASED ON 28 DAY TEST AGE AND SHALL REACH F _c OF 6,000 P.S.I. (DRY CAST).	
REINFORCING STEEL GRADE 60	60,000 P.S.I.
WELDED WIRE FABRIC ASTM A185	60,000 P.S.I.

DESIGN CODES:

- AMERICAN CONCRETE INSTITUTE (ACI) 318-39.
- ASTM C857-82 MINIMUM STRUCTURAL DESIGN LOADING FOR UNDERGROUND - PRECAST CONCRETE UTILITY STRUCTURES.
- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) HB-15TH EDITION.

GENERAL NOTES:

- ALL JOINTS BETWEEN CONCRETE UNITS SHALL BE SEALED WITH A HIGH QUALITY SEALANT TO ASSURE WATERTIGHT INTEGRITY.
- ALL REINFORCEMENT STEEL TO HAVE EQUAL COVER UNLESS OTHERWISE NOTED.
- WITH PRIOR APPROVAL FROM THE TOWN OF GILBERT, THE CONTRACTOR MAY INSTALL 3'-6" X 3'-6" HANDHOLE-NO FLOOR W/36" SQ. HINGED COVER VAULT OR APPROVED EQUAL.



STANDARD
DETAIL

NO. 9 VAULT AND COVER DETAIL

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-844

CONDUCTOR COLOR CODING CRITERIA

IMSA CABLE 19-1, #14 AWG SOLID, 4 CONDUCTOR & 7 CONDUCTOR

SIGNAL HEADS OUTBOARD & FAR LEFT	
7 - CONDUCTOR CABLE	
BASIC COLOR	SIGNAL INTERVAL
RED	RED
BLACK	YELLOW
GREEN	GREEN
ORANGE	YELLOW ARROW
BLUE	GREEN ARROW
WHITE	VEH. COM
WHT/BLK TR	VEH. COM

4 SECTION SIGNAL HEADS OUTBOARD & FAR LEFT (FYA)	
7 - CONDUCTOR CABLE	
BASIC COLOR	SIGNAL INTERVAL
RED	RED ARROW
BLACK	YELLOW ARROW
GREEN	GREEN ARROW
ORANGE	SPARE
BLUE	SPARE
WHITE	VEH. COM
WHT/BLK TR	FY ARROW

PEDESTRIAN HEADS	
4 - CONDUCTOR CABLE	
BASIC COLOR	SIGNAL INTERVAL
RED	DON'T WALK
GREEN	WALK
WHITE	PED. COM.
BLACK	SPARE

SIGNAL HEADS INBOARD & SIDEMOUNT	
4 - CONDUCTOR CABLE	
BASIC COLOR	SIGNAL INTERVAL
RED	RED
BLACK	YELLOW
GREEN	GREEN
WHITE	VEH. COM

PEDESTRIAN PUSHBUTTON	
4 - CONDUCTOR CABLE	
COLOR	CALL OUT
RED	PUSH BUTTON
WHITE	P.B. COM

THE CABLE SHALL BE TAGGED TO INDICATE PHASE.

IMSA CABLE 19-1, #14 AWG, 25 CONDUCTOR

CABLE #1	CABLE #2	CONDUCTOR COLOR		SIGNAL INTERVAL
		BASIC COLOR	TRACER STRIPE	
Ø1 OR OVERLAP C FY ARROW	Ø5 OR OVERLAP D FY ARROW	RED	WHITE	RED ARROW
		BLACK	WHITE	YELLOW ARROW
		GREEN	WHITE	GREEN ARROW
		BLACK	WHITE/RED	FLASHING YELLOW ARROW
Ø2	Ø6	RED	---	RED
		ORANGE	---	YELLOW
		GREEN	---	GREEN
Ø3 OR OVERLAP B FY ARROW	Ø7 OR OVERLAP A FY ARROW	BLACK	RED	RED ARROW
		ORANGE	RED	YELLOW ARROW
		BLUE	RED	GREEN ARROW
		WHITE	BLACK/RED	FLASHING YELLOW ARROW
Ø4	Ø8	RED	BLACK	RED
		ORANGE	BLACK	YELLOW
		GREEN	BLACK	GREEN
Ø2 PED.	Ø6 PED.	BLUE	---	WALK
		BLACK	---	DON'T WALK
		WHITE	BLACK	PUSH BUTTON
Ø4 PED.	Ø8 PED.	BLUE	WHITE	WALK
		RED	GREEN	DON'T WALK
		WHITE	RED	PUSH BUTTON
ALL PHASES	ALL PHASES	WHITE	---	P.B. COMMON
		BLUE	BLACK	SPARE
		ORANGE	GREEN	SPARE
		RED	BLACK/WHITE	SPARE
		GREEN	BLACK/WHITE	SPARE

THE 25 CONDUCTOR CABLES SHALL BE TAGGED ON BOTH ENDS AS FOLLOWS:
 RED TAPE FOR SE TO NE RUN
 YELLOW TAPE FOR SE TO SW RUN
 GREEN FOR SW TO NW RUN
 BLUE FOR NW TO NE RUN



STANDARD
DETAIL

IMSA WIRE PHASE IDENTIFICATION

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-850

NOTE:
 PHASE 2 IS ALWAYS NORTHBOUND
 REGARDLESS OF STREET CLASSIFICATION.

PREEMPTION (PE) CHANNELS

PE Channel A = SB Preemptor 3 (Ø6) GREEN TAPE
 PE Channel B = WB Preemptor 4 (Ø8) BLUE TAPE
 PE Channel C = NB Preemptor 5 (Ø2) RED TAPE
 PE Channel D = EB Preemptor 6 (Ø4) YELLOW TAPE

PREEMPTION	
4 CONDUCTOR CABLE	
BASIC COLOR	SIGNAL INTERVAL
YELLOW	A,B,C,D
ORANGE	26V
BLUE	GROUND
BARE	EARTH GROUND

NOTE:
 PREEMPTION CABLE SHALL BE
 M913 STROBECOM DETECTOR
 CABLE OR APPROVED EQUAL.

25 CONDUCTOR CABLE COLOR CODE MULTI-PHASE

25 Cond Tape Color	WIRE COLOR	PHASE	INDICATION	PHASE CHART COLOR
25 Conductor Ring 1 will have 1 white tape on outer sheathing to identify				
Ø1	RED/WHITE	Ø1	S/B LT - RED	GREEN/WHITE
	BLACK/WHITE	Ø1	S/B LT - YELLOW	GREEN/WHITE
	GREEN/WHITE	Ø1	S/B LT - GREEN	GREEN/WHITE
	BLACK/WHITE-RED	Ø1	S/B LT - FY ARROW	GREEN/WHITE
Ø2	RED	Ø2	N/B THRU - RED	RED
	ORANGE	Ø2	N/B THRU - YELLOW	RED
	GREEN	Ø2	N/B THRU - RED	RED
	BLUE	Ø2	N/B PED - WALK	RED/ORANGE
	BLACK	Ø2	N/B PED - DON'T WALK	RED/ORANGE
	WHITE/BLACK	Ø2	N/B PED PUSHBUTTON	RED/ORANGE/ORANGE
Ø3	BLACK/RED	Ø3	N/B THRU - RED	BLUE/WHITE
	ORANGE/RED	Ø3	N/B THRU - RED	BLUE/WHITE
	BLUE/RED	Ø3	N/B THRU - RED	BLUE/WHITE
	WHITE/BLACK-RED	Ø3	N/B THRU - RED	BLUE/WHITE
Ø4	RED/BLACK	Ø4	E/B THRU - RED	YELLOW
	ORANGE/BLACK	Ø4	E/B THRU - YELLOW	YELLOW
	GREEN/BLACK	Ø4	E/B THRU - GREEN	YELLOW
	BLUE/WHITE	Ø4	E/B PED - WALK	YELLOW/ORANGE
	RED/GREEN	Ø4	E/B PED - DON'T WALK	YELLOW/ORANGE
	WHITE/RED	Ø4	E/B PED PUSHBUTTON	YELLOW/ORANGE/ORANGE
	WHITE	Ø2, Ø4	COMMON PB	
BLUE/BLACK		SPARE		
ORANGE/GREEN		SPARE		
RED/BLACK-WHITE		SPARE		
GREEN/BLACK-WHITE		SPARE		
25 Conductor Ring 2 will have 2 white tape on outer sheathing to identify				
Ø5	RED/WHITE	Ø5	N/B LT - RED	RED/WHITE
	BLACK/WHITE	Ø5	N/B LT - YELLOW	RED/WHITE
	GREEN/WHITE	Ø5	N/B LT - GREEN	RED/WHITE
	BLACK/WHITE-RED	Ø5	N/B LT - FY YELLOW	RED/WHITE
Ø6	RED	Ø6	S/B THRU - RED	GREEN
	ORANGE	Ø6	S/B THRU - YELLOW	GREEN
	GREEN	Ø6	S/B THRU - RED	GREEN
	BLUE	Ø6	S/B PED - WALK	GREEN/ORANGE
	BLACK	Ø6	S/B PED - DON'T WALK	GREEN/ORANGE
	WHITE/BLACK	Ø6	S/B PED PUSHBUTTON	GREEN/ORANGE/ORANGE
Ø7	BLACK/RED	Ø3	N/B THRU - RED	BLUE/WHITE
	ORANGE/RED	Ø3	N/B THRU - RED	BLUE/WHITE
	BLUE/RED	Ø3	N/B THRU - RED	BLUE/WHITE
	WHITE/BLACK-RED	Ø3	N/B THRU - RED	BLUE/WHITE
Ø8	RED/BLACK	Ø8	W/B THRU - RED	BLUE
	ORANGE/BLACK	Ø8	W/B THRU - YELLOW	BLUE
	GREEN/BLACK	Ø8	W/B THRU - GREEN	BLUE
	BLUE/WHITE	Ø8	W/B PED - WALK	BLUE/ORANGE
	RED/GREEN	Ø8	W/B PED - DON'T WALK	BLUE/ORANGE
	WHITE/RED	Ø8	W/B PED PUSHBUTTON	BLUE/ORANGE/ORANGE
	WHITE	Ø6, Ø8	COMMON PB	
BLUE/BLACK		SPARE		
ORANGE/GREEN		SPARE		
RED/BLACK-WHITE		SPARE		
GREEN/BLACK-WHITE		SPARE		

Starting with Outboard (For R) Head 1 Color Tape = Head 1, 2 Color Tape = Head 2, 3 will be side mount etc.

Q-Head or G-Head will be respective color tape plus white tape

25 Cond. will have Red tape on S/E to N/E corner, Yellow tape on S/E to S/W corner. Green tape S/W to N/W corner, Blue tape N/W to N/E corner



STANDARD
 DETAIL

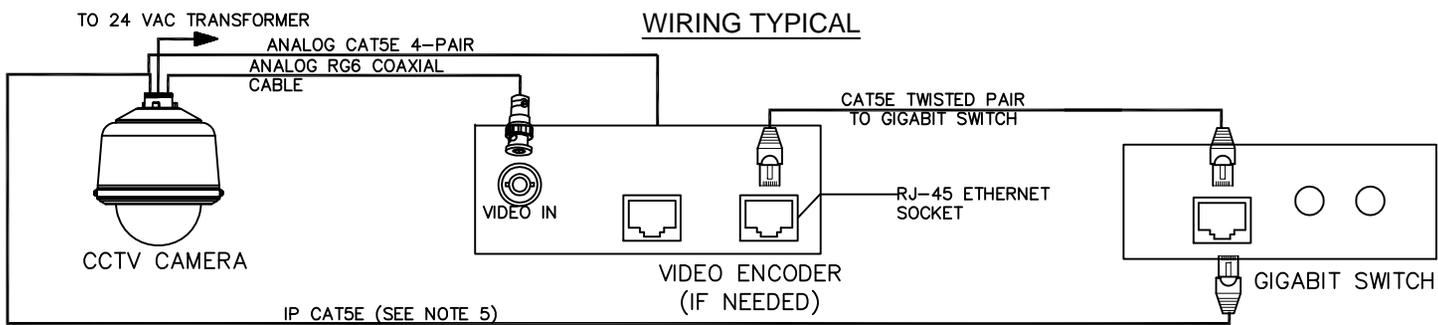
WIRE COLOR CODE AND IDENTIFICATION

APPROVED

TOWN ENGINEER

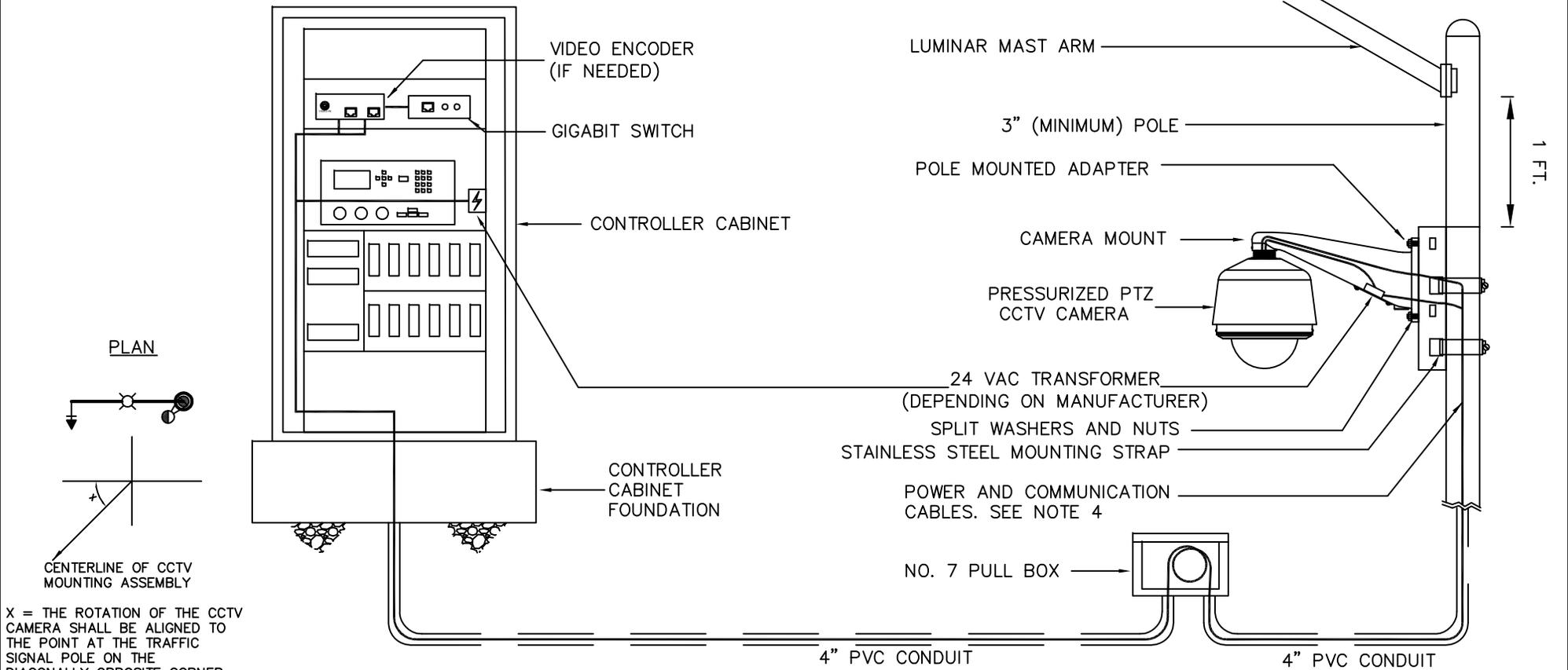
DATE

DETAIL No.
GIL-851

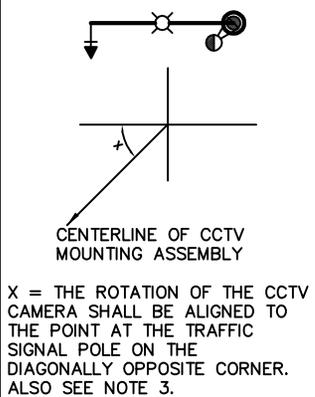


NOTES:

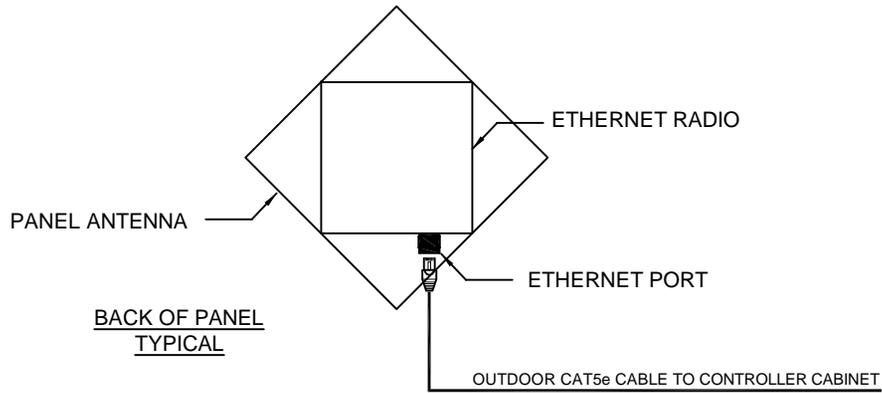
1. THE CCTV COMPOSITE CABLE SHALL BE RUN UNSPLICED FROM THE CCTV TO THE VIDEO ENCODER INSTALLED IN THE CABINET
2. INSTALLATION SHALL BE ACCORDING TO MANUFACTURER SPECIFICATIONS
3. CAMERA SHALL BE MOUNTED ON THE SOUTH SIDE OF THE INTERSECTION. CONTACT THE TOWN OF GILBERT AT (480) 503-6910 FOR SPECIFIC LOCATION.
4. CONTACT THE TOWN OF GILBERT AT (480) 503-6910 FOR APPROVED CCTV CAMERA AND VIDEO ENCODER MODELS AND EQUIPMENT.
5. IF AN IP CCTV CAMERA IS INSTALLED BASED ON NOTE 4, NO VIDEO ENCODER IS NEEDED AND THE CAT5 CABLE FROM THE CCTV CAMERA WILL CONNECT TO THE GIGABIT SWITCH.



PLAN

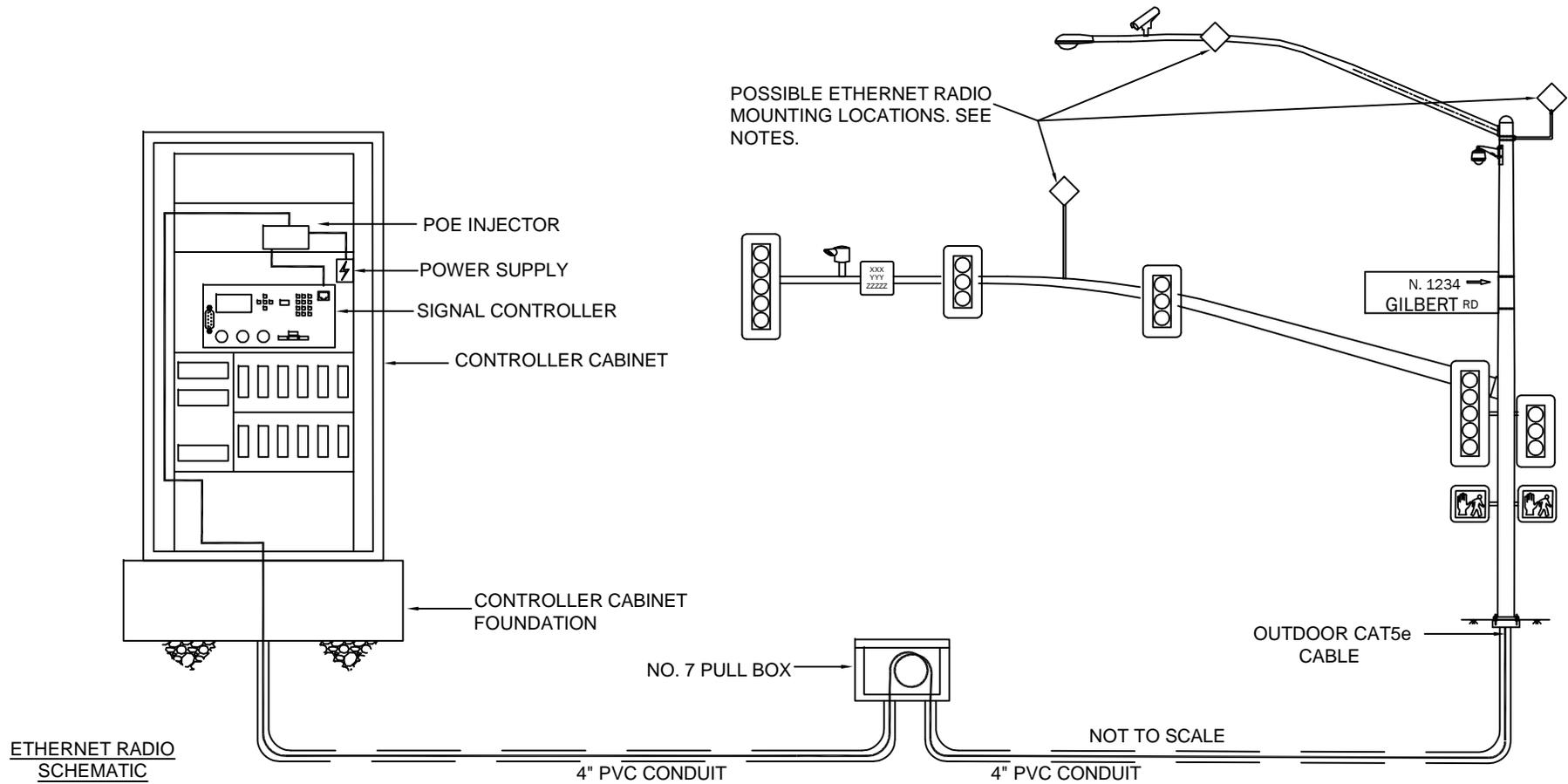


CCTV SCHEMATIC



NOTES:

1. PANEL ANTENNA SHALL BE MOUNTED AT LOCATION WITH BEST LINE-OF-SIGHT. CONTACT THE TOWN OF GILBERT AT (480) 503-6910 FOR MOUNTING LOCATION.
2. CONTACT THE TOWN OF GILBERT AT (480) 503-6910 FOR MOUNTING BRACKET INFORMATION.
3. ORIENTATION OF THE PANEL ANTENNA IS SITE SPECIFIC. CONTACT THE TOWN OF GILBERT AT (480) 503-6910 FOR DETAILS BEFORE INSTALLATION.
4. INSTALLATION SHALL BE ACCORDING TO MANUFACTURER SPECIFICATIONS.



STANDARD
DETAIL

ETHERNET RADIO DETAIL

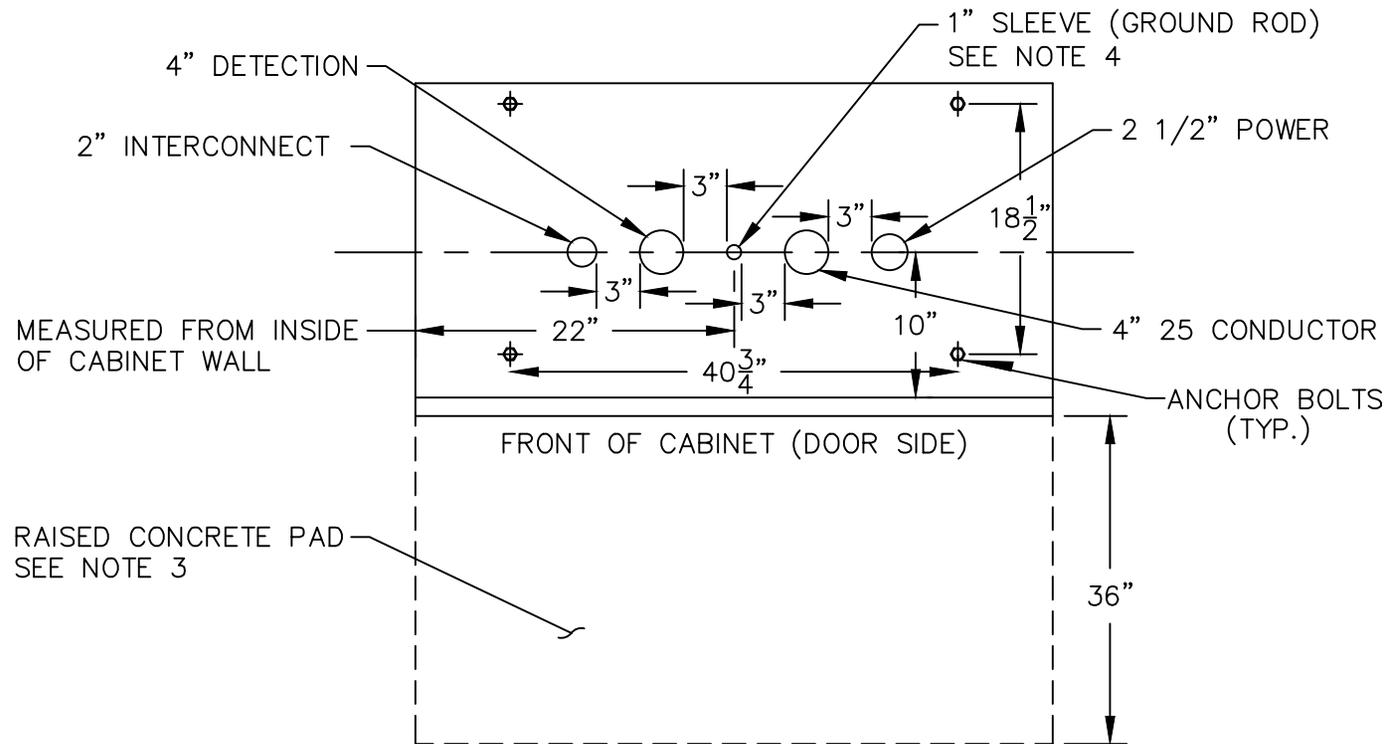
APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-862

NOT TO SCALE



NOTES:

1. ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE TOWN OF GILBERT STANDARD DETAILS, AND THE LATEST EDITION OF: THE ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT) "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION"; THE ADOT "TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS"; AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. CONDUIT PROJECTION ABOVE FOUNDATION SHALL BE 2 1/2" MIN. AND 4" MAX AND SHALL HAVE SMOOTH BELL ENDS ATTACHED.
3. IN UNPAVED AREAS A RAISED CONCRETE PAD 36" X 4" X THE WIDTH OF FOUNDATION, SHALL BE PLACED IN FRONT OF THE CABINET. PAD SHALL BE SET 2" BELOW THE FOUNDATION ELEVATION. SLOPE PAD AWAY FROM CABINET. SEE ADOT STD. DWG. T.S. 2-1.
4. 1" SLEEVE (FOR GROUND ROD) SHALL BE INSERTED WHEN FOUNDATION IS POURED. INSTALL A 5/8" DIAMETER X 8' LONG BONDED COPPER GROUND ROD IN 1" SLEEVE CENTERED IN THE CABINET (APPROX. 22" FROM EDGE) AND PLACED 10" BACK FROM CABINET DOOR.
5. PRIOR TO POURING CONCRETE FOUNDATION, FINAL APPROVAL OF CONDUIT PLACEMENT FROM TRAFFIC OPERATIONS OR DESIGNEE SHALL BE OBTAINED.



STANDARD
DETAIL

CONTROL CABINET FOUNDATION

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-872

SEE TABLE

SEE DETAIL C
(FOR MINOR ARTERIAL
POLE, SEE DETAIL 'B',
DETAIL GIL-921)

1/4" MIN THICK
TAPERED TUBE

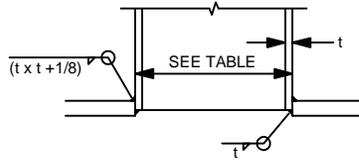
SEE TABLE

HANDHOLE
SEE DETAIL
GIL-919

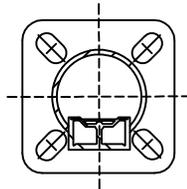
SEE BASE PLATE
DETAIL 'A' AND 'B'
THIS DRAWING

POLE FOUNDATION
SEE DETAIL GIL-932

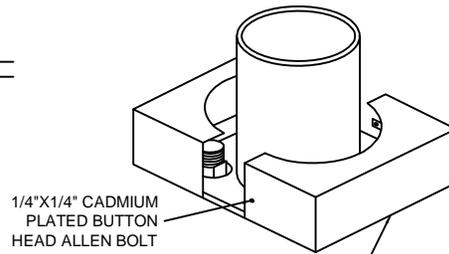
DATA TABLE									
LOCATION	LUMINAIRE MTG. HGT.	POLE HGT.	HANDHOLE HGT.	BASE O.D. PIPE	TOP O.D. PIPE	MAST ARM LENGTH	ARM RISE	GROUNDING DETAIL	FOUNDATION TYPE
LOCAL & COLLECTOR	32'-0"	32'-0"	1'-0"	0'-8 1/2"	0'-4"	SINGLE TENON & BOX		DETAIL GIL-941 DETAIL GIL-942	DETAIL GIL-932
MINOR ARTERIAL	40'-0"	32'-0"	1'-0"	0'-8 1/2"	0'-4"	SEE NOTE 8	8'-0"	DETAIL DETAIL	DETAIL GIL-932
MAJOR ARTERIAL	40'-0"	40'-0"	1'-6"	0'-9 5/8"	0'-4"	DOUBLE TENON & BOX		DETAIL DETAIL	DETAIL GIL-932



BASE PLATE
DETAIL 'A'

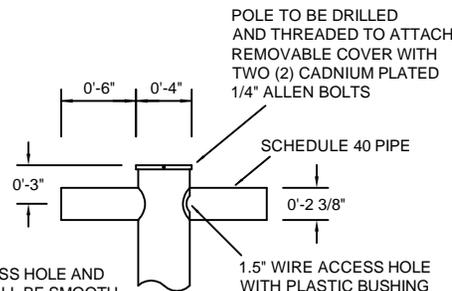


BASE PLATE
DETAIL 'B'



BASE COVER SHALL BE MADE
OF STEEL, SECURED TO POLE,
AND SLID TIGHTLY AGAINST
BASE PLATE

BOLT COVER DETAIL



NOTE:
WIRE ACCESS HOLE AND
TENON SHALL BE SMOOTH,
FREE FROM BURRS OR
SHARP EDGES

TENON
DETAIL 'C'

NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO POWDER COATING.
2. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
3. AFTER FABRICATION, THE POLE SHALL BE SHOTBLASTED TO A NEAR WHITE FINISH PER SSPC SP-6 AND THEN TREATED WITH AN IRON PHOSPHATE SOLUTION.
4. A POLYESTER POWDER SHALL BE ELECTROSTATICALLY APPLIED AND CURED TO A MINIMUM 2.5 MIL THICKNESS PER MANUFACTURER'S RECOMMENDATIONS. COLOR TO MATCH TIGER DRYLAC RAIL BRONZE MATTE EXTERIOR 049/62070 OR APPROVED EQUIVALENT.
5. INSTALL GROUNDING CONNECTOR, ILSCO TA6-S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
6. SEE DETAIL H2 FOR REINFORCED HAND HOLE DETAIL.
7. BASE PLATE SHALL BE 1" X 12" X 12" WITH 1-1/4" ELONGATED HOLES ON 12-1/2" B.C.
8. SEE DETAIL A1 FOR MINOR ARTERIAL MAST ARM LENGTH.
9. ALL SUBMITTALS SHALL BE SEALED BY A LICENSED PROFESSIONAL ENGINEER.
10. A STAINLESS STEEL TAG SHALL BE PERMANENTLY ATTACHED TO THE POLE ABOVE THE HAND HOLE STATING THE MANUFACTURER'S NAME AND DATE MANUFACTURED



STANDARD
DETAIL

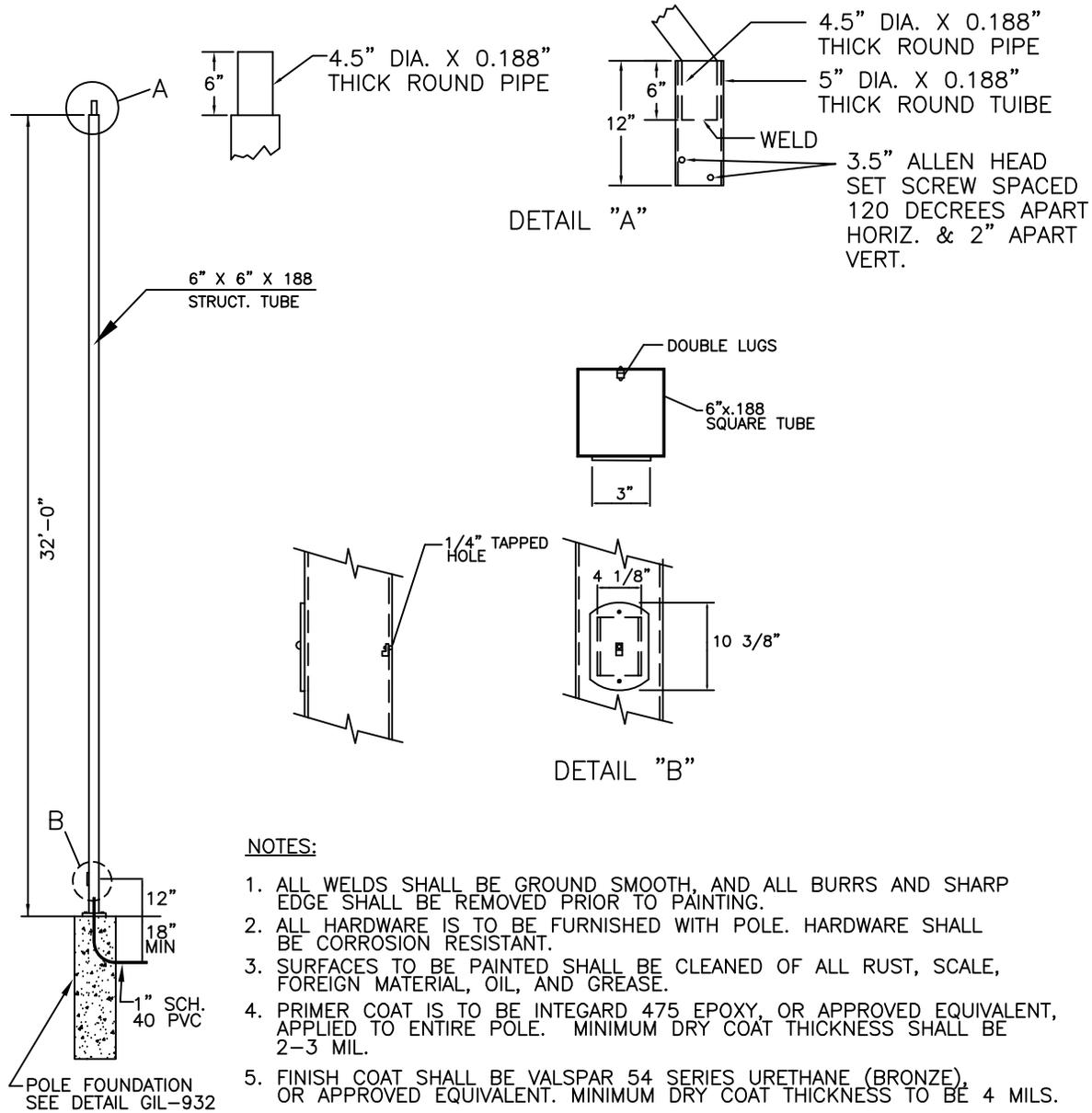
27' ROUND TAPERED POLE
ARTERIAL STREETS

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-901



STANDARD
DETAIL

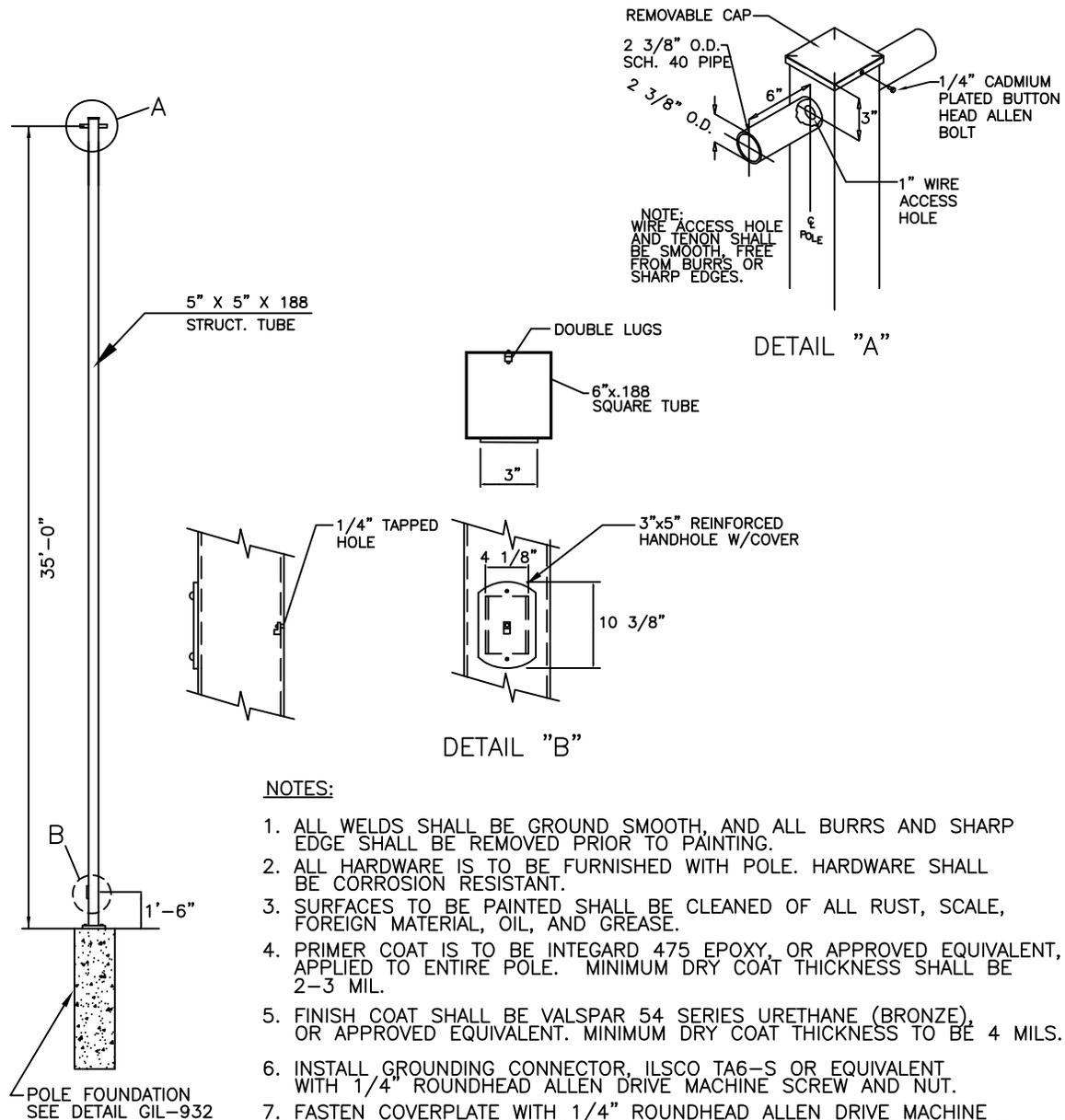
32' ROUND TAPERED POLE
ARTERIAL STREETS

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-902



NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGE SHALL BE REMOVED PRIOR TO PAINTING.
2. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
3. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
4. PRIMER COAT IS TO BE INTEGARD 475 EPOXY, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 2-3 MIL.
5. FINISH COAT SHALL BE VALSPAR 54 SERIES URETHANE (BRONZE), OR APPROVED EQUIVALENT. MINIMUM DRY COAT THICKNESS TO BE 4 MILS.
6. INSTALL GROUNDING CONNECTOR, ILSCO TA6-S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
7. FASTEN COVERPLATE WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREWS. POLE TO BE DRILLED AND TAPPED TO ACCEPT THIS SCREW.
8. BASE PLATE SHALL BE 1"x12"x12" WITH 1-1/4"Ø HOLES ON 12-1/2" B.C.
9. USE SHALL BE DETERMINED BY THE TOWN OF GILBERT.
10. SEE DETAIL GIL-919 FOR 3"x5" REINFORCED HAND HOLE DETAIL.
11. POLE SHALL ONLY BE USED WITH 250W LUMINAIRE.



STANDARD
DETAIL

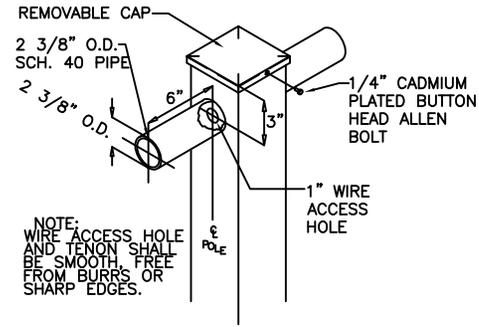
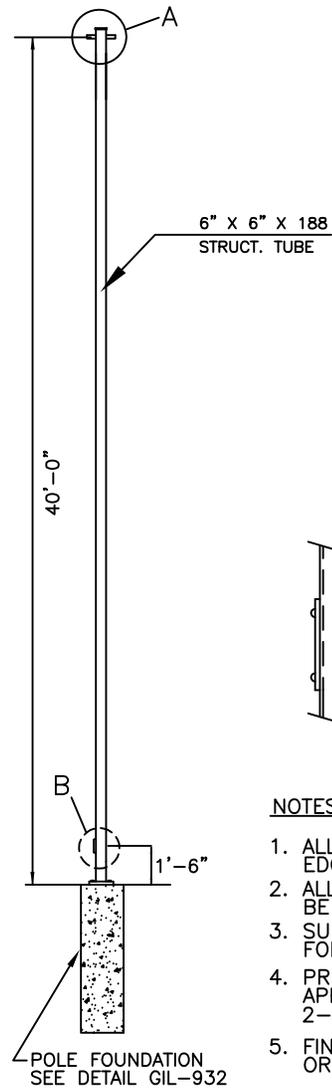
**35' ROUND TAPERED POLE
ARTERIAL STREETS (MEDIAN)**

APPROVED

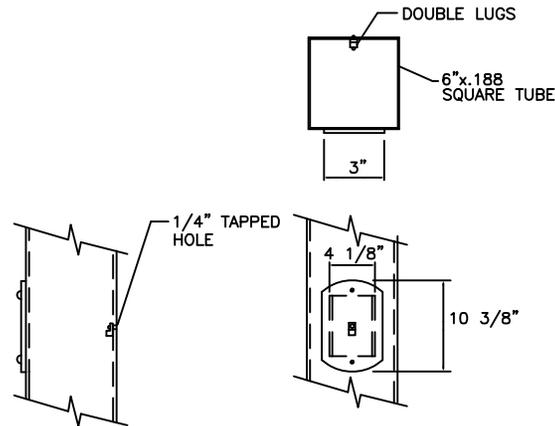
TOWN ENGINEER

DATE

DETAIL No.
GIL-905



DETAIL "A"



DETAIL "B"

NOTES:

1. ALL WELDS SHALL BE GRIND SMOOTH, AND ALL BURRS AND SHARP EDGE SHALL BE REMOVED PRIOR TO PAINTING.
2. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
3. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
4. PRIMER COAT IS TO BE INTEGARD 475 EPOXY, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 2-3 MIL.
5. FINISH COAT SHALL BE VALSPAR 54 SERIES URETHANE (BRONZE), OR APPROVED EQUIVALENT. MINIMUM DRY COAT THICKNESS TO BE 4 MILS.
6. INSTALL GROUNDING CONNECTOR, ILSCO TA6-S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
7. FASTEN COVERPLATE WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREWS. POLE TO BE DRILLED AND TAPPED TO ACCEPT THIS SCREW.
8. BASE PLATE SHALL BE 1"x12"x12" WITH 1-1/4"Ø HOLES ON 12-1/2" B.C.
9. USE SHALL BE DETERMINED BY THE TOWN OF GILBERT.
10. SEE DETAIL GIL-919 FOR 3"x5" REINFORCED HAND HOLE DETAIL.



STANDARD
DETAIL

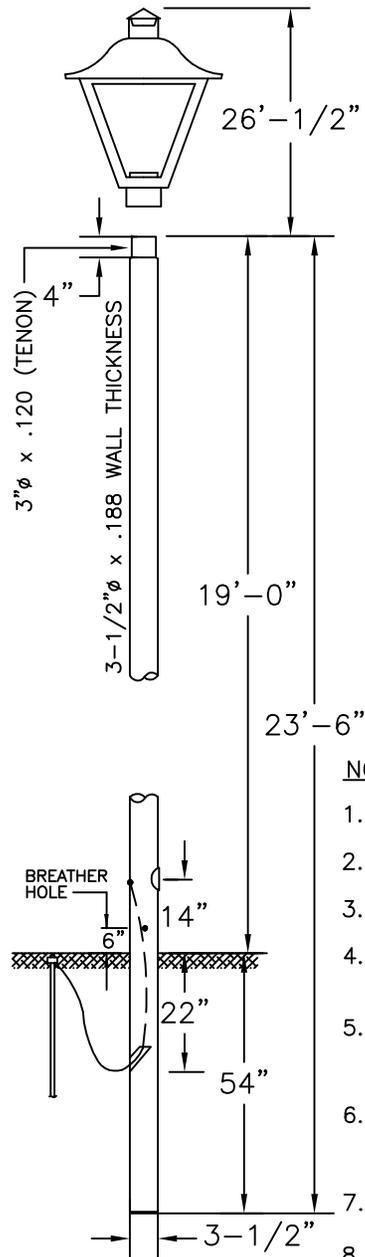
40' ROUND TAPERED POLE
ARTERIAL STREETS (MEDIAN)

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-906



WATTS	TYPE	VOLTS	INITIAL LUMENS	MOUNTING HEIGHT
150	HPS	120	16000	20'-4"

APPROVED MANUFACTURERS:

AMERICAN ELECTRIC

150 WATT HPS - 247-56762-6

GENERAL ELECTRIC

150 WATT HPS - TRCR15S1M2GMC2BL

QTY	MATERIAL LIST FOR EACH POLE
1	CLAMP GROUND ROD 5/8
1	ROD COPPERCLAD GRD 5/8 X 8
1	WIRE BARE #6 SOLID CU
1	POLE 23'-6" STEEL
1	CONTROL PHOTO-ELECT 120V
1	LUMINAIRE 150W HPS
1	LAMP 150W HPS

NOTES:

1. ALL WELDS SHALL BE GRIND SMOOTH, AND ALL BURRS AND SHARP EDGE SHALL BE REMOVED PRIOR TO PAINTING.
2. ALL HARDWARE IS TO BE FURNISHED WITH POLE. HARDWARE SHALL BE CORROSION RESISTANT.
3. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
4. PRIMER COAT IS TO BE INTERGARD 475 EPOXY, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 2-3 MILS.
5. AFTER THE POLE HAS BEEN PRIME COATED, THE POLE BUTT SHALL BE CONFORMABLY HALF LAP TAPED WITH SCOTCH 50 CORROSION PROTECTION TAPE, OR EQUIVALENT, FROM A POINT 2" BELOW THE BREATHER HOLE TO THE BOTTOM OF THE POLE.
6. FINISH COAT SHALL BE VALSPAR 54 SERIES URETHANE (BLACK), OR APPROVED EQUIVALENT, APPLIED FROM THE TOP OF THE POLE TO A POINT ONE FOOT BELOW THE BREATHER HOLE. MINIMUM DRY COAT THICKNESS TO BE 4 MILS.
7. INSTALL GROUNDING CONNECTOR, ILSCO TA6-S OR EQUIVALENT WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREW AND NUT.
8. FASTEN COVERPLATE WITH 1/4" ROUNDHEAD ALLEN DRIVE MACHINE SCREWS. POLE TO BE DRILLED AND TAPPED TO ACCEPT THIS SCREW.
9. USE SHALL BE DETERMINED BY THE TOWN OF GILBERT.
10. ADJUST PHOTO EYE TO FACE NORTH.



STANDARD
DETAIL

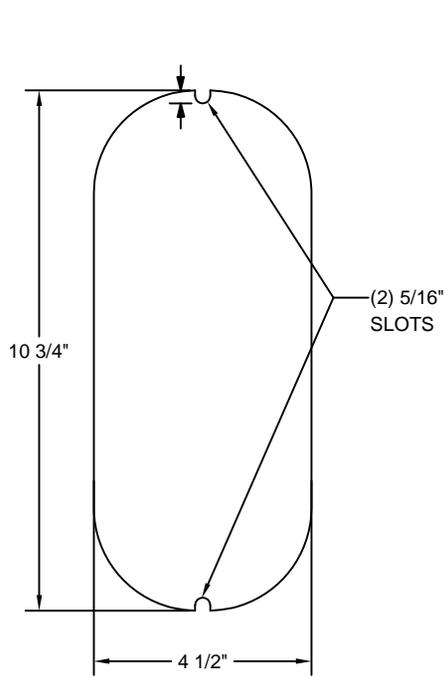
POST TOP STREET LIGHT
RESIDENTIAL STREETS

APPROVED

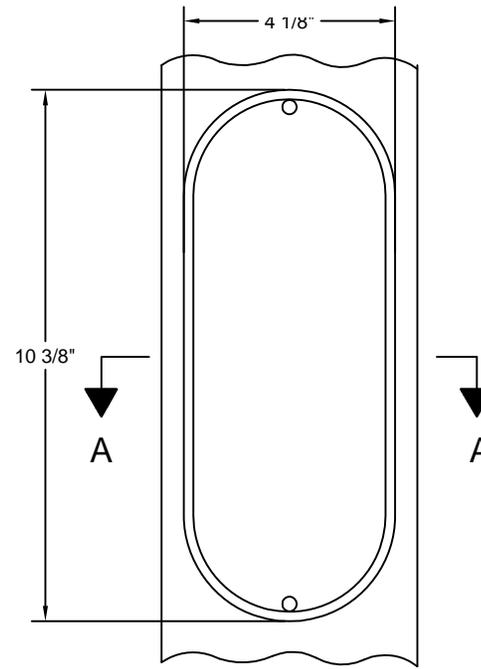
TOWN ENGINEER

DATE

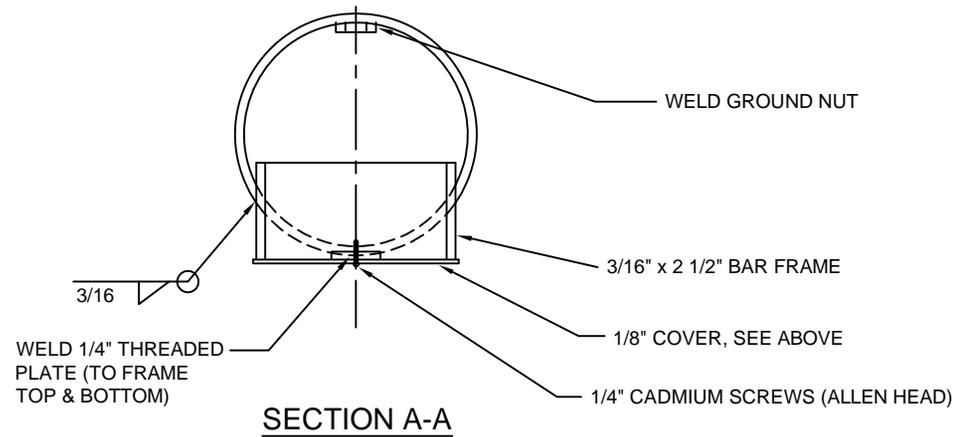
DETAIL No.
GIL-910



HANDHOLE COVER
(TUBE & FRAME NOT SHOWN)



POLE ELEVATION



*CENTER OF HANDHOLE SHALL BE 1' 6" FROM BOTTOM OF POLE



STANDARD
DETAIL

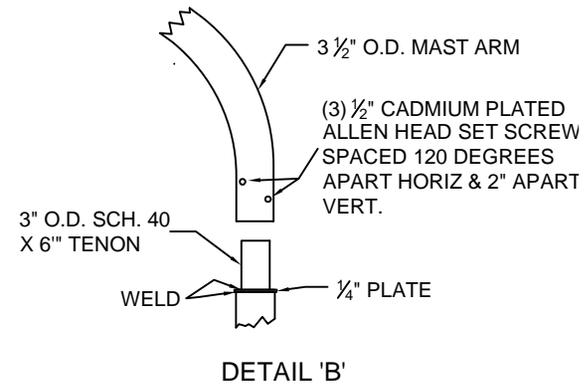
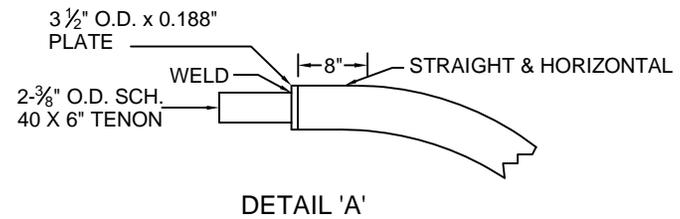
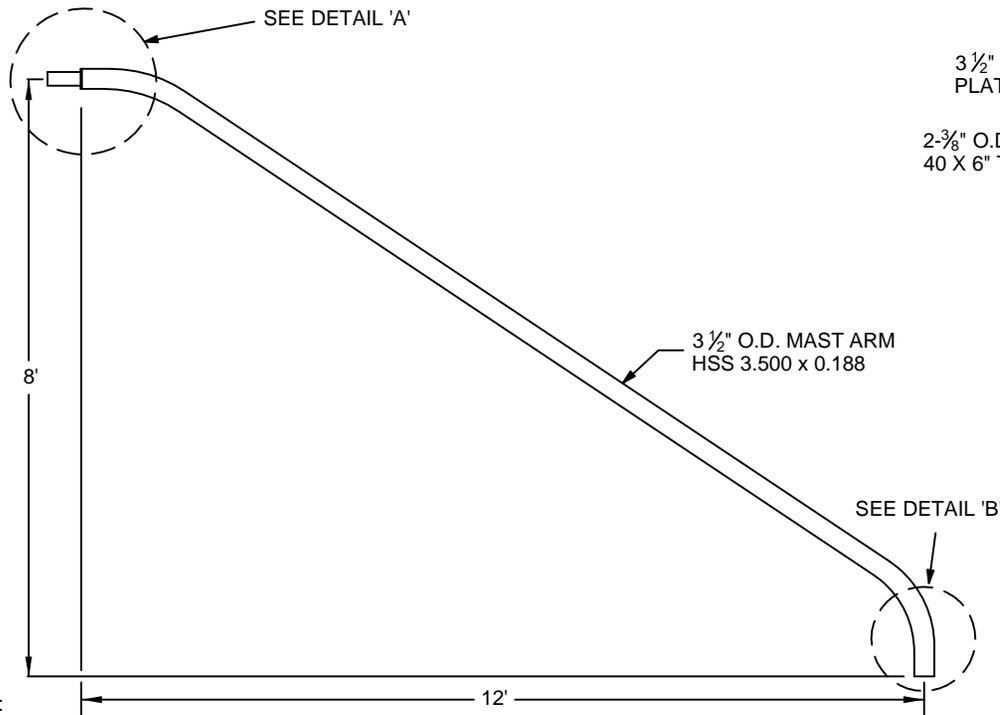
**POLE HANDHOLE DETAIL 4 1/8" x 10 3/8"
REINFORCED**

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-919



NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO POWDER COATING.
2. AFTER FABRICATION, THE POLE SHALL BE SHOTBLASTED TO A NEAR WHITE FINISH PER SSPC SP-6 AND THEN TREATED WITH AN IRON PHOSPHATE SOLUTION.
3. A POLYESTER POWDER SHALL BE ELECTROSTATICALLY APPLIED AND CURED TO A MINIMUM 2.5 MIL THICKNESS PER MANUFACTURER'S RECOMMENDATIONS. COLOR TO MATCH TIGER DRYLAC RAIL BRONZE MATTE EXTERIOR 049/62070 OR APPROVED EQUIVALENT.
4. USE WITH MINOR ARTERIAL ROUND POLE. SEE DETAIL GIL-901.



STANDARD
DETAIL

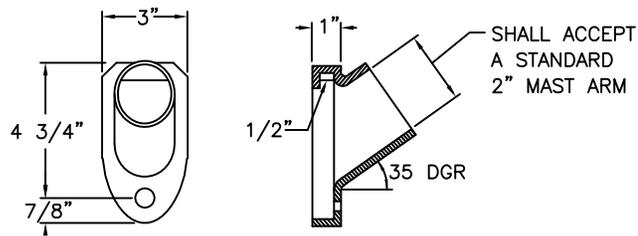
12' x 8' HIGH RISE ARM

APPROVED

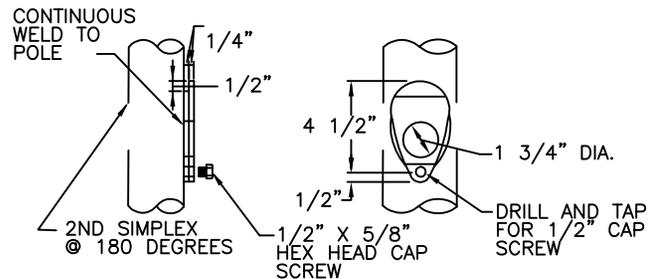
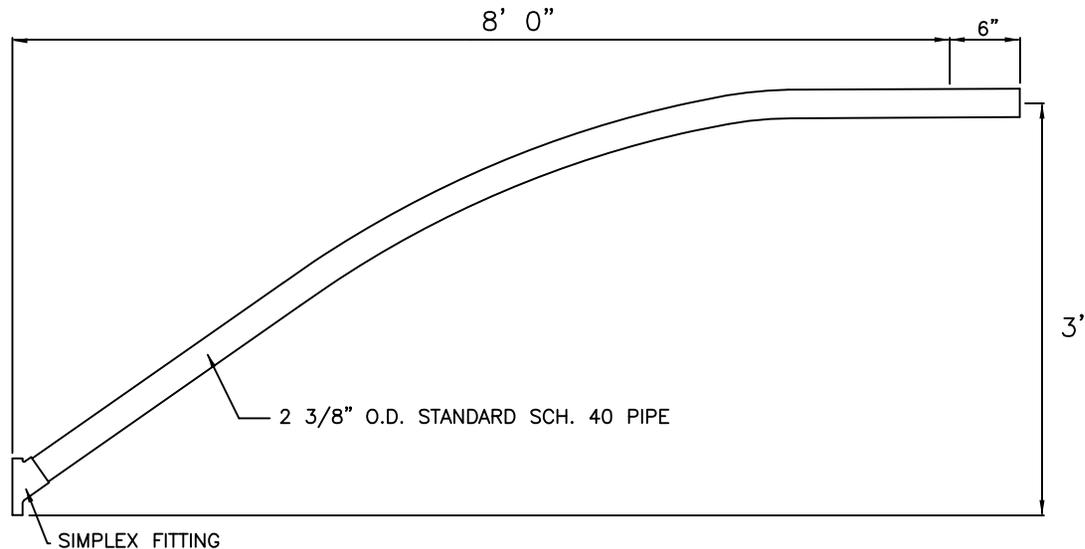
TOWN ENGINEER

DATE

DETAIL No.
GIL-921



FEMALE SIMPLEX



MALE SIMPLEX

NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
2. SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. FINISH COAT SHALL BE GALVANIZED PER ASTM A-123 OR APPROVED EQUIVALENT.
4. USE ONLY AS APPROVED BY TOWN ENGINEER.



STANDARD
DETAIL

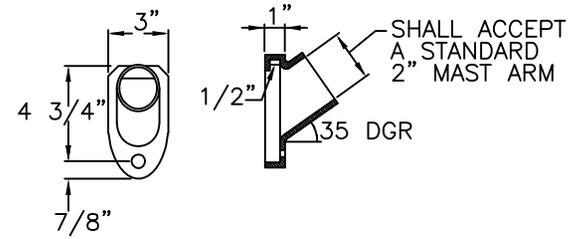
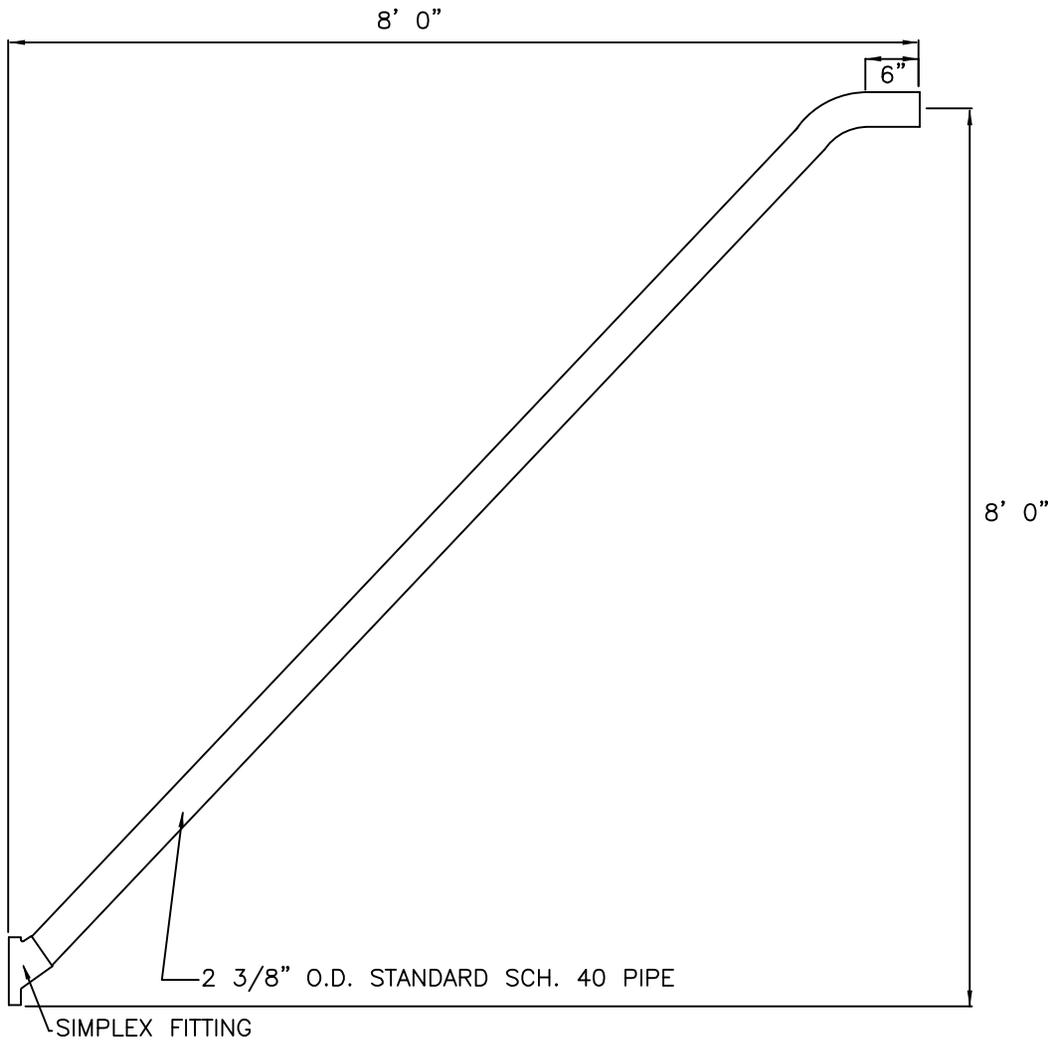
8' x 3' MAST ARM

APPROVED

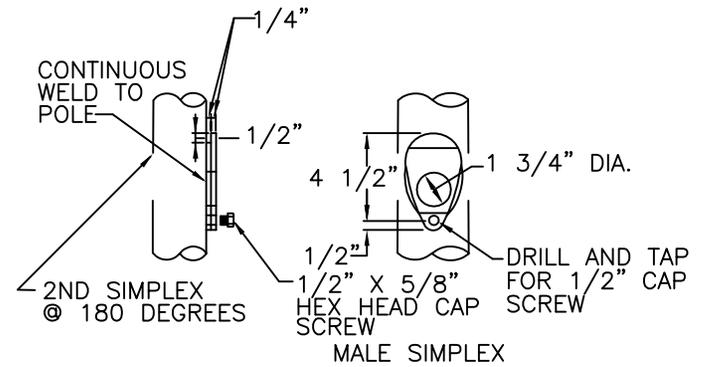
TOWN ENGINEER

DATE

DETAIL No.
GIL-922



FEMALE SIMPLEX



NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO GALVANIZING.
2. SURFACES TO BE GALVANIZED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. FINISH COAT SHALL BE GALVANIZED PER ASTM A-123 OR APPROVED EQUIVALENT.
4. USE ONLY AS APPROVED BY TOWN ENGINEER.



STANDARD
DETAIL

8' x 8' HIGH RISE ARM FOR
COBRA HEAD FIXTURE

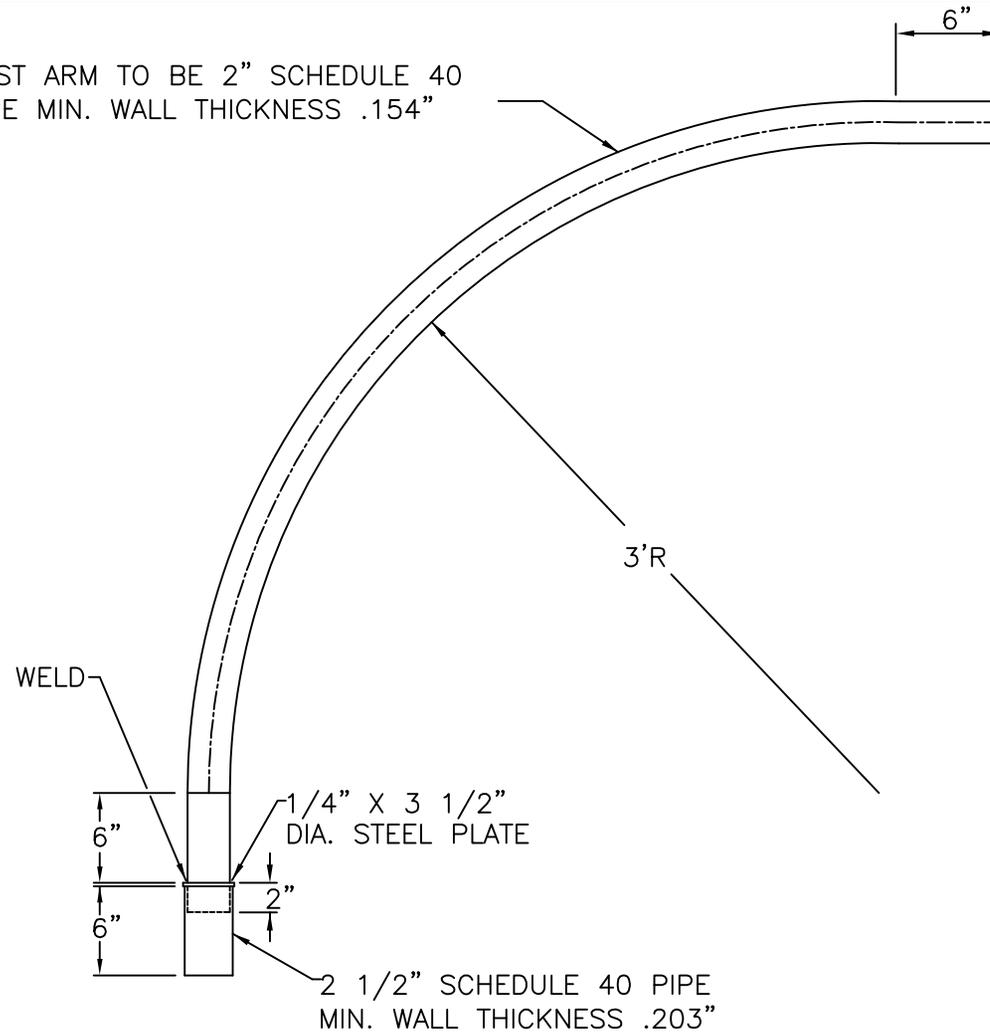
APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-923

MAST ARM TO BE 2" SCHEDULE 40
PIPE MIN. WALL THICKNESS .154"



NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO PAINTING.
2. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. PRIMER COAT IS TO BE URECAL NO. 1001, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 1 MIL.
4. FINISH COAT SHALL BE URECAL 9179 (GRAY) OR APPROVED EQUIVALENT.
5. USE ONLY AS APPROVED BY TOWN ENGINEER.



STANDARD
DETAIL

3' RADIUS ARM FOR
COBRA HEAD FIXTURE

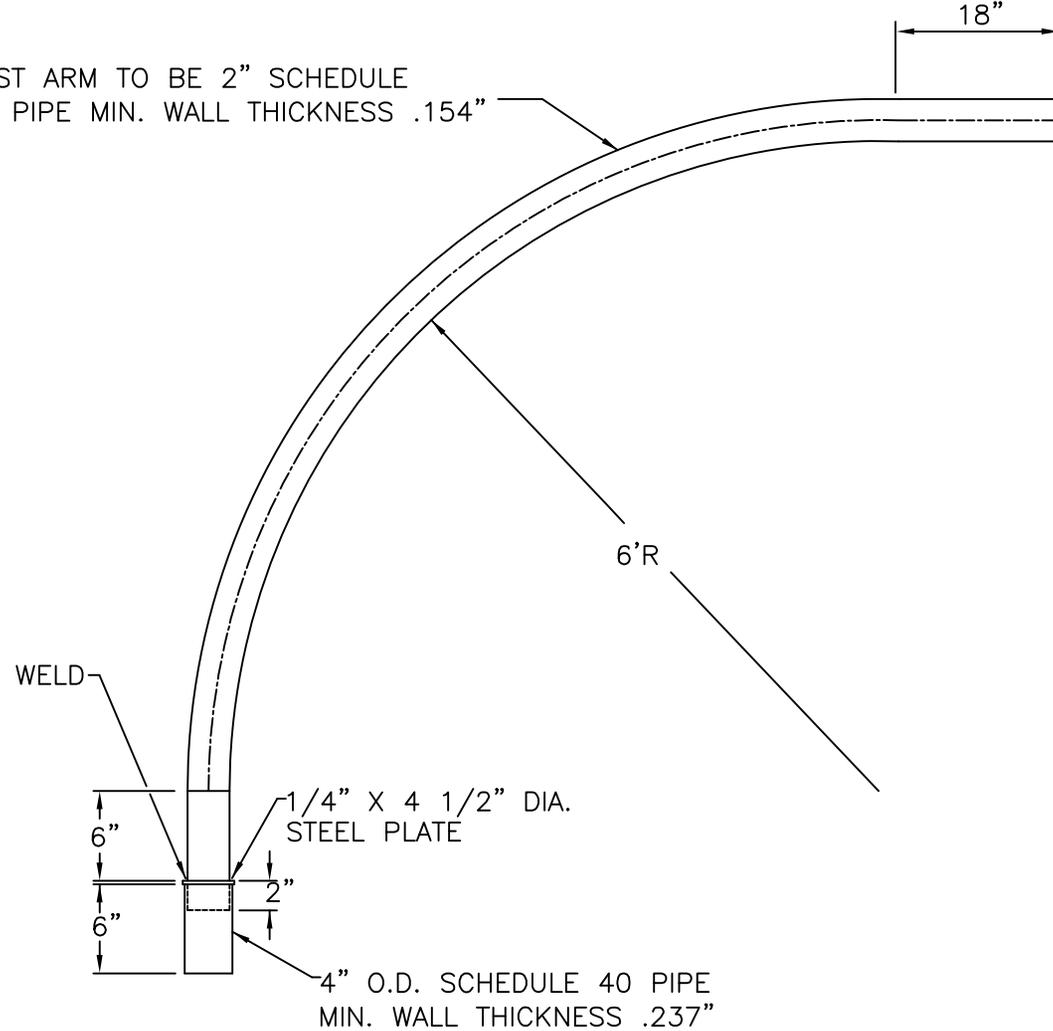
APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-924

MAST ARM TO BE 2" SCHEDULE
40 PIPE MIN. WALL THICKNESS .154"



NOTES:

1. ALL WELDS SHALL BE GROUND SMOOTH, AND ALL BURRS AND SHARP EDGES SHALL BE REMOVED PRIOR TO PAINTING.
2. SURFACES TO BE PAINTED SHALL BE CLEANED OF ALL RUST, SCALE, FOREIGN MATERIAL, OIL, AND GREASE.
3. PRIMER COAT IS TO BE URECAL NO. 1001, OR APPROVED EQUIVALENT, APPLIED TO ENTIRE POLE. MINIMUM DRY COAT THICKNESS SHALL BE 1 MIL.
4. FINISH COAT SHALL BE URECAL 9179 (GRAY) OR APPROVED EQUIVALENT.
5. USE ONLY AS APPROVED BY TOWN ENGINEER.



STANDARD
DETAIL

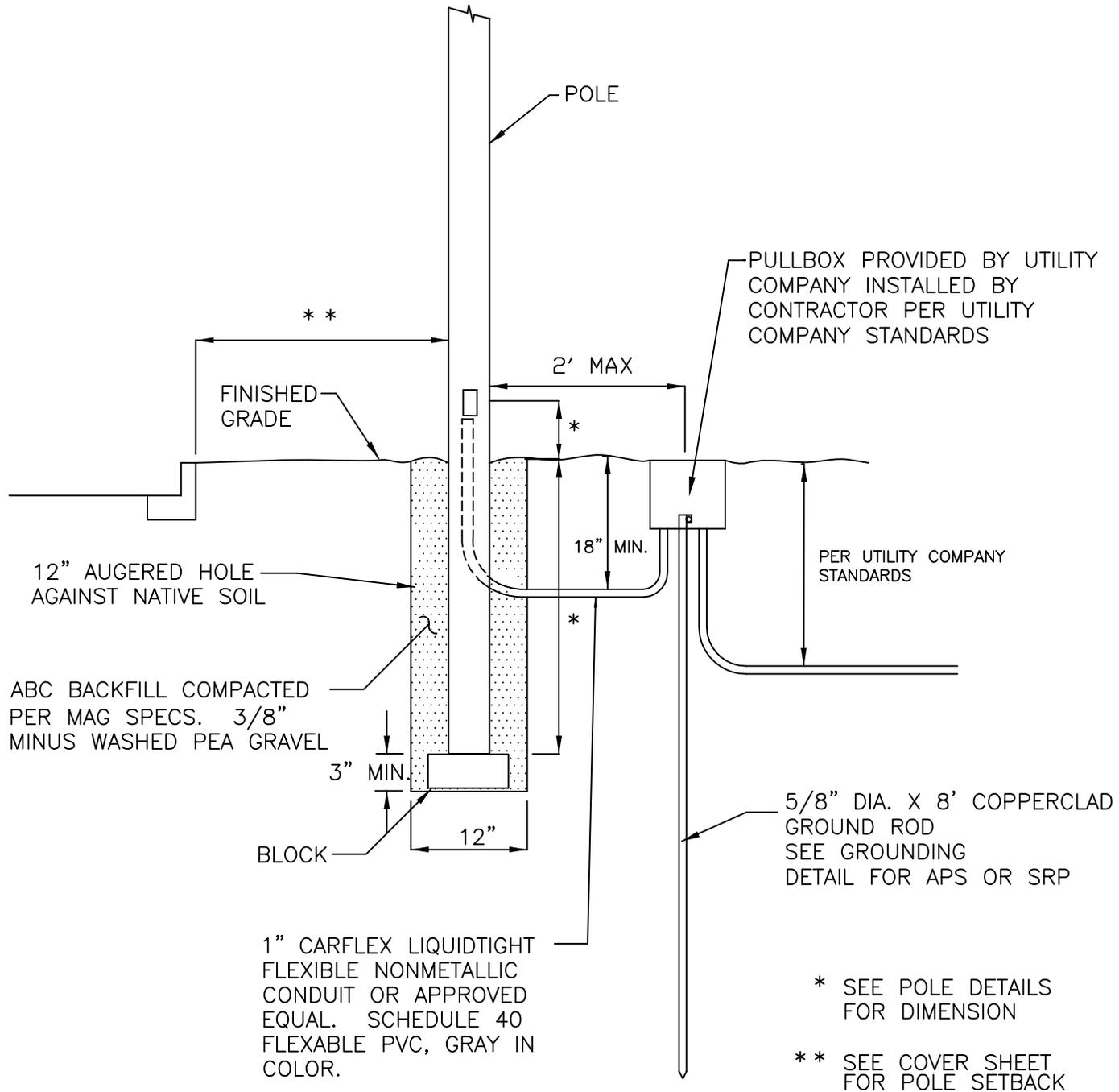
6' RADIUS ARM FOR
COBRA HEAD FIXTURE

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-925



STANDARD
DETAIL

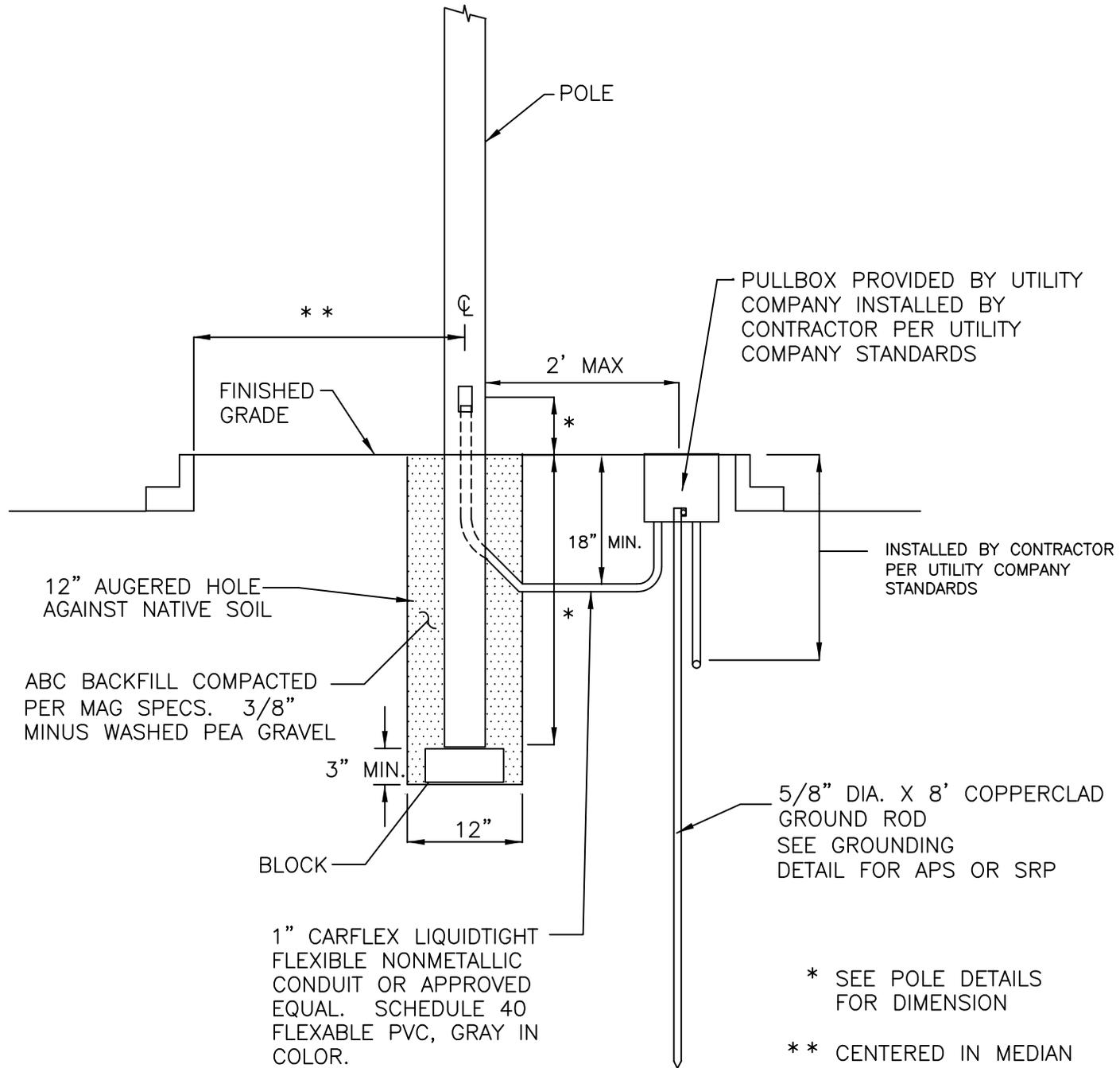
EMBEDDED POLE DETAIL

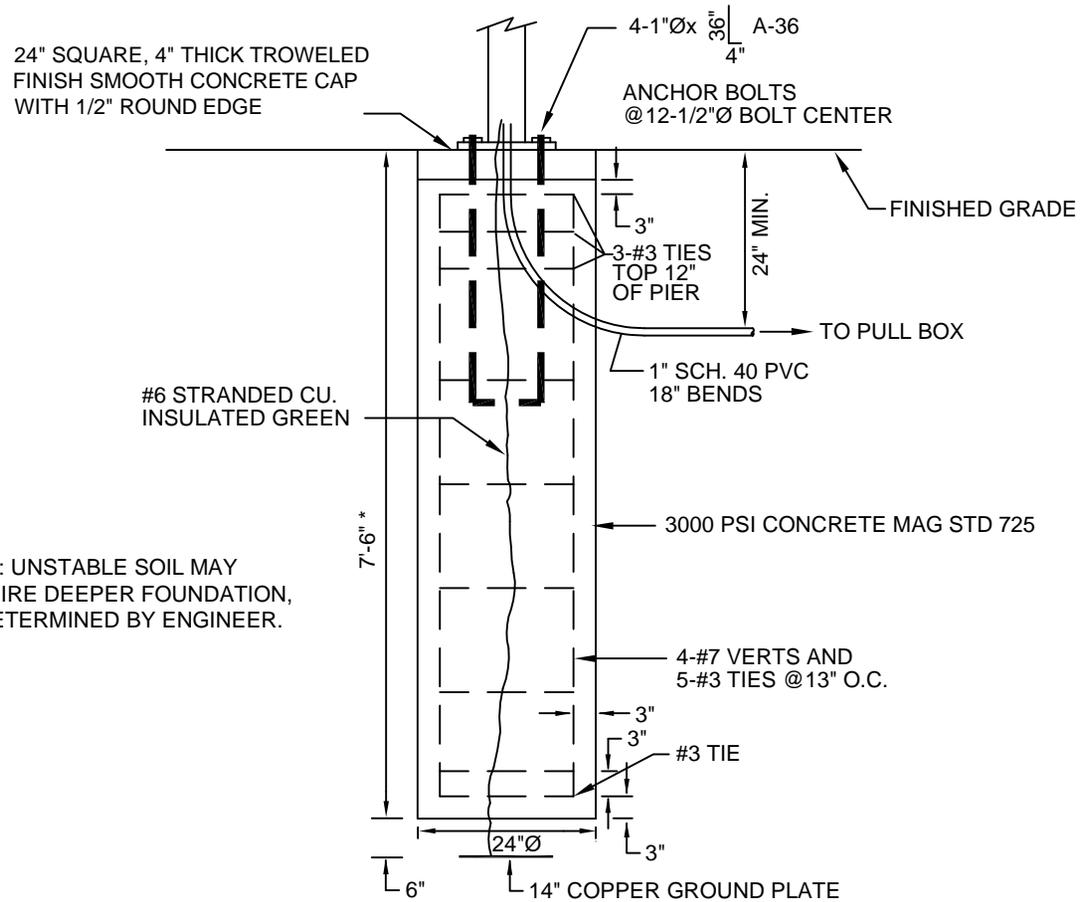
APPROVED

TOWN ENGINEER

DATE

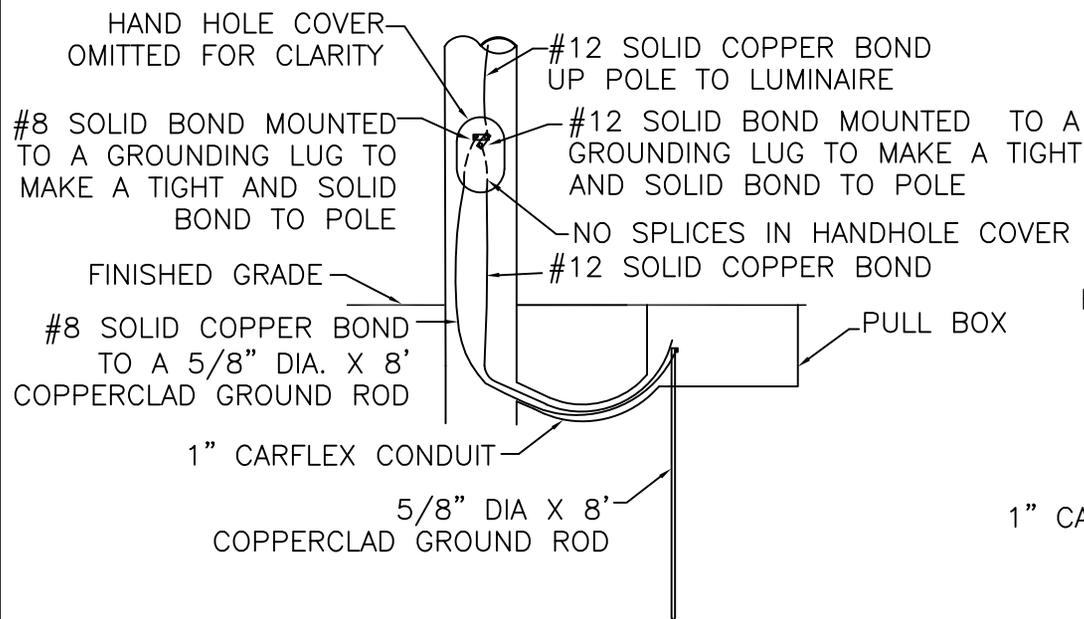
DETAIL No.
GIL-930



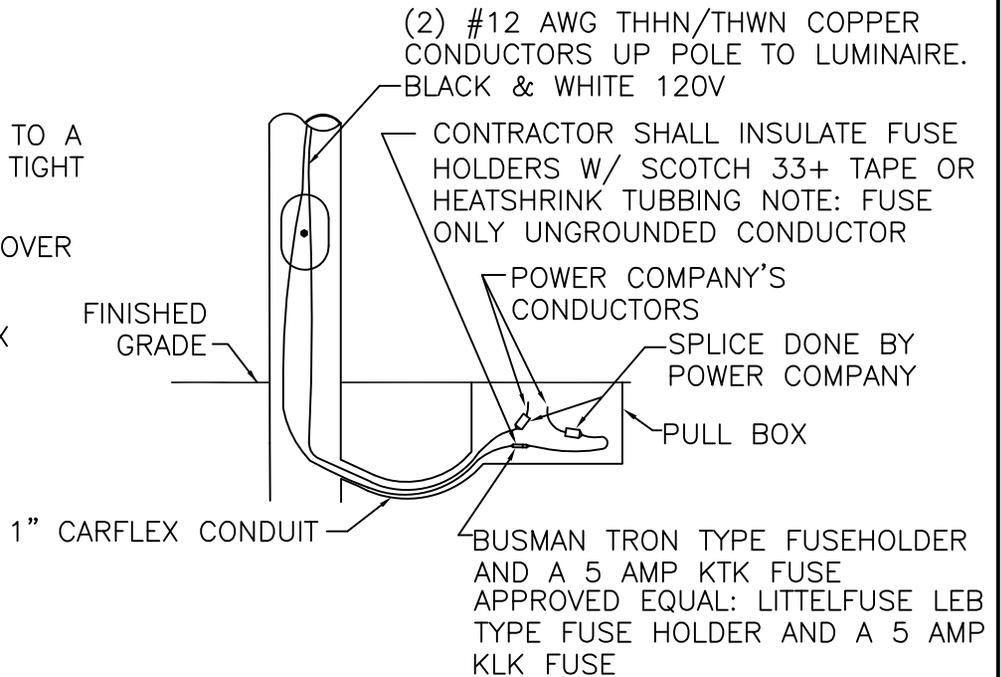


NOTES:

1. REINF A615 GRADE 60 EXCEPT #3 GRADE 40.
2. TOP OF FOUNDATION SHALL BE FINISHED WITH A SMOOTH SURFACE WITH A 1/2" ROUND EDGE.
3. POLE FOUNDATION SHALL CURE FOR 72 HOURS BEFORE INSTALLING LIGHT POLES.
4. ALL FINISHED POLE FOUNDATIONS SHALL BE AT SIDEWALK GRADE OR TOP OF CURB WHEN IN MEDIAN.
5. ANCHOR BOLTS SHALL BE FULLY GALVANIZED PER ASTM A-135.
6. CONCRETE PLACEMENT SHALL FOLLOW MAG SPECIFICATIONS.
7. DO NOT FREEFALL CONCRETE IN EXCESS OF 5'.
8. A VIBRATOR SHALL BE USED TO DISTRIBUTE CONCRETE & REDUCE AIR VOIDS.
9. MAXIMUM SLUMP SHALL NOT EXCEED 5".
10. CAP SHALL BE POURED SEPARATELY WITH MIN 2500 PSI CONCRETE, MAG STD 725.
11. FOR FUSING & GROUNDING SEE DETAILS GIL-941 AND GIL-942.
12. *DEPTH OF FOUNDATION SHALL BE VERIFIED BY INSPECTOR PRIOR TO POURING.



POLE GROUNDING DETAIL



POLE FUSING DETAIL

GENERAL NOTES

1. ALL SPLICES SHALL BE DONE USING A BLACKBURN WR-7, WR-9, WR-189, OR WR-279 H TYPE CRIMP CONNECTOR. CRIMPING SHALL BE DONE USING A BURNDY TOOL NO. OS-50 WITH 5/8" DIE SHALL BE USED TO CRIMP THE WR-7 WR-9. A BURNDY TOOL NO. MD6-8 WITH O DIE SHALL BE USED TO CRIMP THE WR-189. A BURNDY TOOL NO. MD6-8 WITH D3 DIE SHALL BE USED TO CRIMP THE WR-279.
2. ALL POLES SHALL BE WIRED USING TWO (2) #12 AWG TYPE THHN/THWN STRANDED COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) #12 SOLID BARE OR GREEN COPPER BOND WIRE. BOND WIRE SHALL RUN FROM THE LUMINAIRE TO A MINIMUM OF TWELVE (12) INCHES BELOW POLE HAND HOLE, FOR TERMINATION. CONDUCTORS SHALL RUN FROM LUMINAIRE TO PULL BOX.
3. ALL STREETLIGHT CONDUCTORS AND BOND WIRES SHALL BE COPPER. CONDUCTORS FROM PULL BOX TO LUMINAIRE SHALL BE AWG TYPE THHN/THWN. ALL CONDUCTORS SHALL BE STRANDED AND ALL BOND WIRES SHALL BE SOLID.



STANDARD
DETAIL

FUSING AND GROUNDING
DETAIL SRP AREA

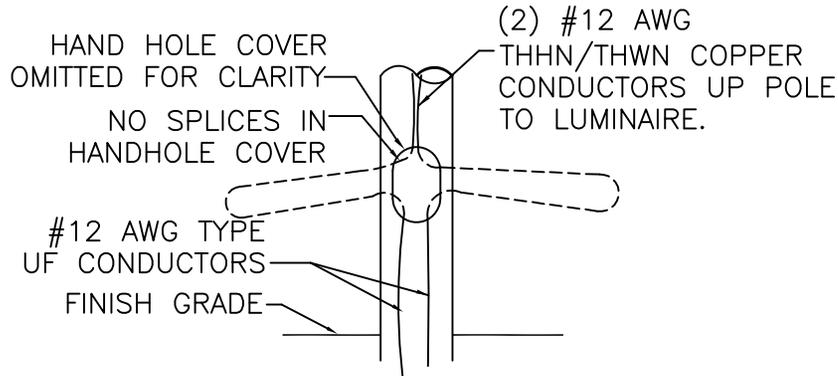
APPROVED

TOWN ENGINEER

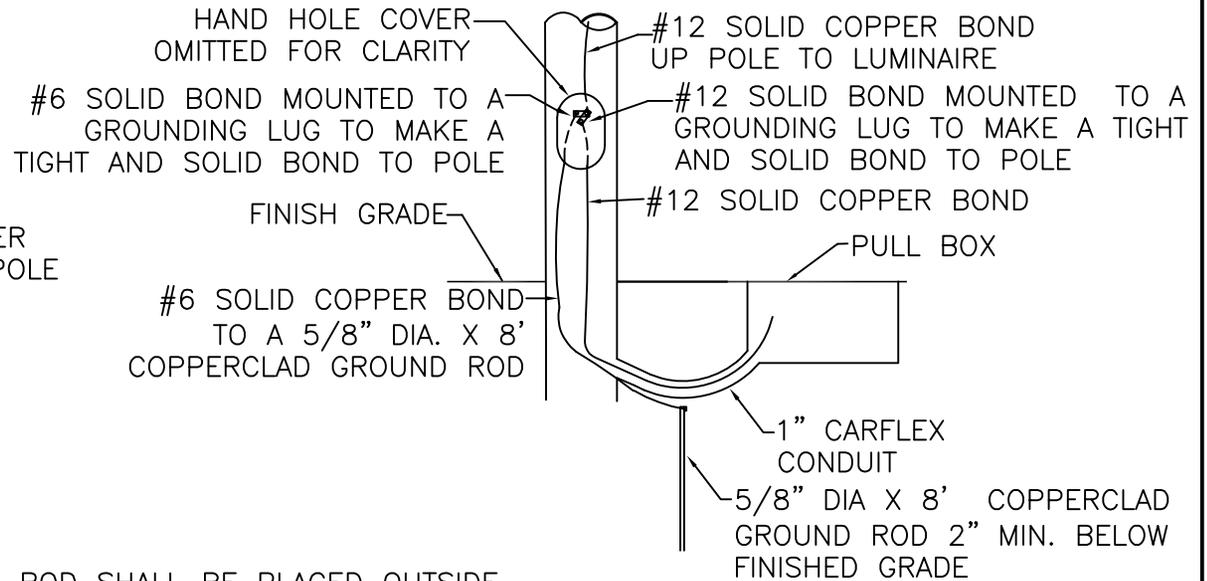
DATE

DETAIL No.
GIL-941

APPROVED EQUAL:
LITTELFUSE LEB TYPE FUSE
HOLDER AND A 5 AMP KLK FUSE



POLE FUSING DETAIL



POLE GROUNDING DETAIL

NOTE: GROUND ROD SHALL BE PLACED OUTSIDE THE J-BOX BELOW FINISHED GRADE. BOND WIRE SHALL PASS THROUGH POLE CONDUIT OPENING

GENERAL NOTES

1. ALL SPLICES SHALL BE DONE USING A BLACKBURN WR-7, WR-9, WR-189, OR WR-279 H TYPE CRIMP CONNECTOR. CRIMPING SHALL BE DONE USING A BURNDY TOOL NO. OS-50 WITH 5/8" DIE SHALL BE USED TO CRIMP THE WR-7 WR-9. A BURNDY TOOL NO. MD6-8 WITH O DIE SHALL BE USED TO CRIMP THE WR-189. A BURNDY TOOL NO. MD6-8 WITH D3 DIE SHALL BE USED TO CRIMP THE WR-279.
2. ALL POLES SHALL BE WIRED USING TWO (2) #12 AWG TYPE THHN/THWN SOLID COPPER CONDUCTORS, 600 VOLT, NEC APPROVED AND ONE (1) #12 SOLID BARE COPPER BOND WIRE. WIRES SHALL RUN FROM THE LUMINAIRE TO A MINIMUM OF TWELVE (12) INCHES BELOW POLE HAND HOLE, FOR TERMINATION.
3. ALL STREETLIGHT CONDUCTORS AND BOND WIRES SHALL BE COPPER. CONDUCTORS FROM PULL BOX TO HAND HOLE SHALL BE AWG TYPE UF INSULATION. CONDUCTORS FROM HAND HOLE TO LUMINAIRE SHALL BE AWG TYPE THHN/THWN. ALL CONDUCTORS SHALL BE STRANDED AND ALL BOND WIRES SHALL BE SOLID.



STANDARD
DETAIL

FUSING AND GROUNDING
DETAIL APS AREA

APPROVED

TOWN ENGINEER

DATE

DETAIL No.
GIL-942

NOTES:

PHYSICAL

SIZE SEE DRAWING
 WEIGHT APPROX. 7 OZ. GROSS
 CHASSIS MOLDED PHENOLIC WITH 3 POLE
 TWISTLOCK PLUG WITH CROSS
 LINKED POLYETHYLENE GASKET.
 HOUSING U.V. STABILIZED POLYPROPYLENE
 WITH ACRYLIC WINDOW WITH
 ULTRAVIOLET INHIBITOR.
 COLOR DARK BRONZE OR BLUE

ELECTRICAL

SUPPLY VOLTAGE 105-130 VOLTS, 50/60HZ AC
 RATINGS LOAD 1800VA MAX. SPST, N.C.
 INRUSH CURRENT 130 AMPERES AT 120 VOLTS
 65 AMPERES AT 240 VOLTS
 OPERATING LEVELS TURN ON AVERAGE 1FC. .2FC
 TURN ON MAXIMUM 1.8FC ±
 RATIO AVERAGE 3
 CONTROL POWER 3.2 WATTS, MAX. (2.75 AVERAGE) AT 240 VAC.
 DIELECTRICAL STRENGTH 5 KV MIN. BETWEEN ANY CURRENT CARRYING
 PART AND METAL MOUNTING SURFACE.
 LIGHT ARRESTOR DELUXE-CONTROLLED TYPE EXPULSION
 ENCLOSED 2.0 KV SPARK OVER MIN. TYPE
 10,000 AMPS FOLLOW THROUGH
 PHOTOCCELL HERMETICALLY SEALED CDS CELL, MINIMUM
 SURFACE AREA .75 SQUARE INCHES
 TIME DELAY INSTANT

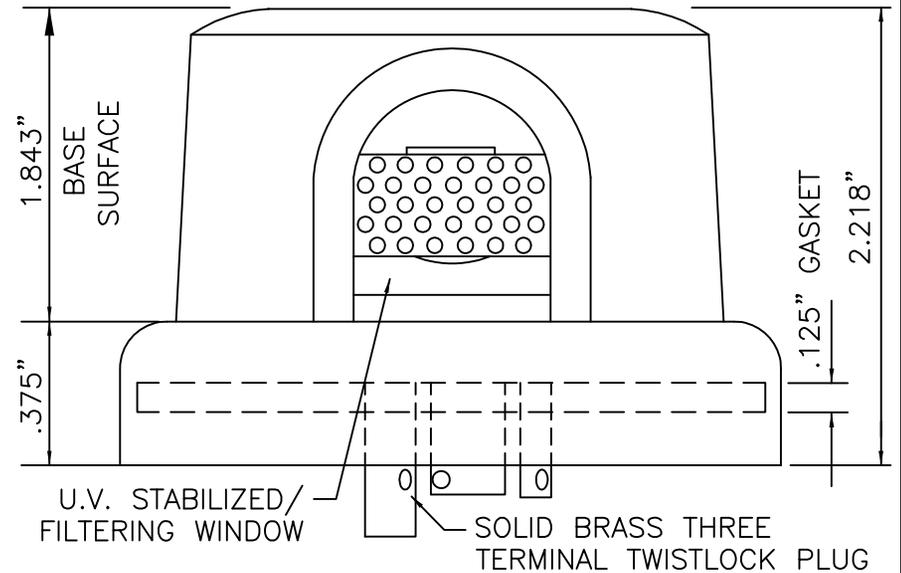
ENVIRONMENTAL

AMBIENT TEMPERATURE RANGE -65 DEGREES FAHRENHEIT TO +158 DEGREES
 FAHRENHEIT
 MOISTURE RESISTANCE 100% RELATIVE HUMIDITY

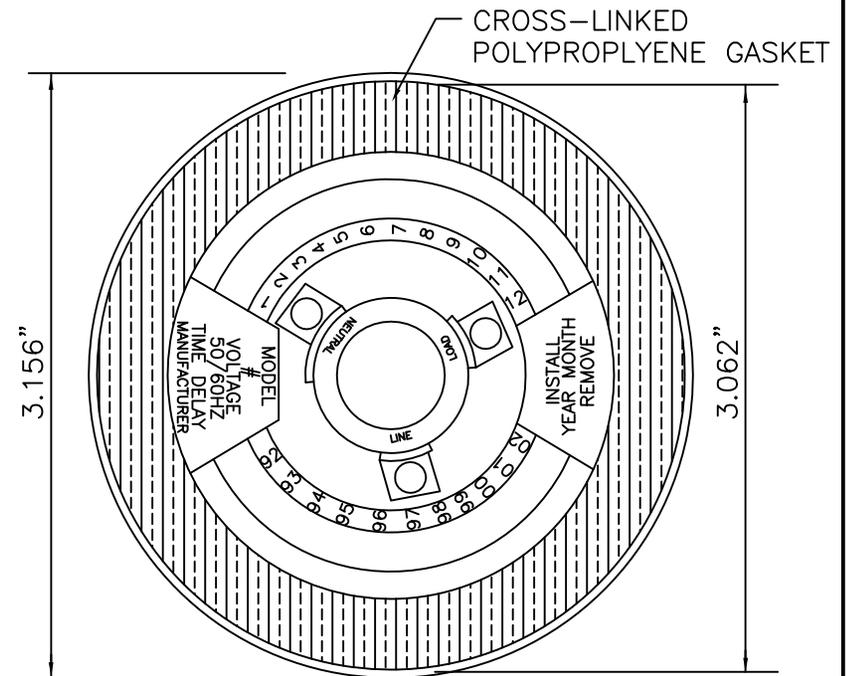
APPROVED MANUFACTURERS:

FISHER PIERCE

120V 7762-EPSTD



NORTH SIDE VIEW



BOTTOM VIEW



**STANDARD
 DETAIL**

PHOTO CONTROL DETAIL

APPROVED

 TOWN ENGINEER

 DATE

DETAIL No.
GIL-945